



U. S. Department  
of Transportation

**United States  
Coast Guard**

# **COAST GUARD AIR OPERATIONS MANUAL**

COMDTINST M3710.1E

COMDTINST M3710.1E  
16 OCT 2002

COMMANDANT INSTRUCTION M3710.1E

Subj: COAST GUARD AIR OPERATIONS MANUAL

1. PURPOSE. This Manual promulgates a revision of the Coast Guard Air Operations Manual. It prescribes policy, standards, instructions and capabilities pertinent to all phases of Coast Guard flight operations and is intended for use by operational commanders, unit commanding officers, aircrews tasked with air operations, as well as customers of Coast Guard aviation.
2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, chief counsel and special staff offices at headquarters shall ensure compliance with the provisions of this instruction.
3. DIRECTIVES AFFECTED. Coast Guard Air Operations Manual, COMDTINST M3710.1D is superseded.
4. SUMMARY. The major changes to the Manual are summarized below, however, due to the significant revision of this Manual (incorporated over 250 changes), a careful review is recommended:
  - a. Section 1.A.3: G-OCA website is the location for most up to date version of the manual and changes.
  - b. Section 1.B.3 and 1.G.8.e: HU-25C aircraft are no longer under Area control.
  - c. Section 1.F.4: The C-130 Stan Team is now under control of ATC Mobile.
  - d. Section 2.D.1: Clarification of who can take the controls of Coast Guard aircraft.
  - e. Section 2.F.2.c: Explanation of SCATANA.
  - f. Section 3.C.3.a (3)(b) and Appendix D: Reverse Cycle Operations added.
  - g. Section 3.D.3.b, D.3.d: Rotary wing alternate requirements added.
  - h. Section 4.D.5: "Operations Over the High Seas" added.
  - i. Section 4.H.3: Deployment of Combat Rubber Raiding Craft added.

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NON-STANDARD DISTRIBUTION: B:a: G-OCA (20), G-OCU (3), G-OPN (1), G-SEA (10), G-SEN (1), G-OPL (1), G-WKS (4); B:c: MLCALPAC (6 extra); C:a: Airsta Clearwater, Kodiak (50 extra), Miami (25extra); D:a: COMGANTS (3 extra); D:l: ATG Pearl Harbor, ATG Pacific, ATG Atlantic, FTG Norfolk, OPBAT (2 extra); D:q: NATTC Memphis only, CANFORCES Naval Attache (1), 62 AW/DOTX (C130 Simulator Mc Chord AFB, WA 984-0249 (2)

COMDTINST M3710.1E

- j. Section 4.H.7: Airborne Use of Force added.
  - k. Section 4.H.8, 4.H.9: Policy regarding securing engines in flight clarified.
  - l. Section 4.H.13: Hoisting of divers added.
  - m. Section 4.H.14: Hoisting of boarding team members added.
  - n. Section 4.H.15: Vertical Insertion (VI) operations added.
  - o. Section 4.K: Rewritten to include NVG Level III operations, policy regarding use of mixed NVG types in the cockpit clarified, policy regarding use of NVGs for ground taxi and instrument approaches clarified.
  - p. Section 4.O: Orientation Flights, significantly expanded.
  - q. Section 4.Q.7: Cockpit Strategic Napping, added.
  - r. Section 4.S: Electronic Equipment section added. G-SEA given control of EMC SOFT program. Policy regarding use of defibrillators updated.
  - s. Chapter 5: Important Questions section expanded and entire chapter rewritten for better clarity.
  - t. Section 8.A.7: CO must notify G-OCA when an AC's designation is pulled for reasons other than medical.
  - u. Section 8.C.3: CAE C-130 course authorized.
  - v. Section 8.C.7.c: Policy regarding logging of Rescue Swimmer deployments clarified.
  - w. Section 8.H.3: Warm up requirements significantly changed
  - x. Section 9.F.4: The findings of an administrative board are listed as the normal basis for adding a flight violation to an aviator's record.
  - y. Appendix A Section D: Standardization Officer and Auxiliary Aviation Liaison Officer added.
  - z. Appendix F Section B: Information added on how units can get authorization and use data recorders in maintenance troubleshooting. Policy on flight without a data recorder clarified.
  - aa. Appendix H: New appendix, Flight Logbook Guide. Returned guidance on filling out the Aviator's Logbook from 3710.1C and updated old information.
  - bb. Appendix I: New appendix, Coast Guard Auxiliary Aviation.
  - cc. INDEX: Will be significantly expanded and "user friendly."
5. **FORMS AVAILABILITY:** All forms mentioned in this Manual, as well as the Manual itself, are available in the AR&SC Internet website under the Engineering and Publications library section, can be reproduced directly from the Manual, or be accessed using Jetform Filler software.

D. S. BELZ /S/  
Rear Admiral, U. S. Coast Guard  
Assistant Commandant for Operations

## RECORD OF CHANGES

[illegible]



# AIR OPERATIONS MANUAL

## COMDTINST 3710.1E

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## ABBREVIATIONS AND ACRONYMS

**9D5** U.S. Navy Designation for Egress Training Device

**9U44** U.S. Navy Designation for Egress Training Device

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### A

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**AC** Aircraft Commander

**ACIP** Aviation Career Incentive Pay

**ADC** Aircrew Dry Coverall

**ADF** Automatic Direction Finder

**ADIZ** Air Defense Identification Zone

**ADS** Air Drop System

**ADSK** Air Delivery Survival Kit

**AG** Aviation Gunner

**AGL** Above Ground Level

**AI** (1) Air Intercept  
(2) Aircrew Instructor

**AIM** Aeronautical Information Manual

**ALMIS** Aviation Logistics Management Information System

**AM** Amplitude Modulation

**AMC** Air Mobility Command (USAF)

**AMIO** Alien Migrant Interdiction Operations

**AMMIS** Aviation Maintenance Management Information System

**AMS** Aviation MEDEVAC Specialist

**AMT** Aviation Maintenance Technician

**ANDVT** Advanced Narrow-band Digital Voice Terminal

**AO** Area of Operations

**AOR** Area of Responsibility



<b>APOD</b>	Aerial Port of Debarkation
<b>APOE</b>	Aerial Port of Embarkation
<b>AR&amp;SC</b>	Aviation Repair & Supply Center, Elizabeth City, NC
<b>AST</b>	Aviation Survival Technician
<b>ATC</b>	(1) Air Traffic Control (2) Aviation Training Center, Mobile, AL
<b>ATON</b>	Aids to Navigation
<b>ATTC</b>	Aviation Technical Training Center, Elizabeth City, NC
<b>AUF</b>	Airborne Use of Force
<b>AUXLO</b>	Auxiliary Aviation Liaison Officer
<b>AV</b>	Avionicsman
<b>AVCERT</b>	Aviation Facilities Certification
<b>AVT</b>	Avionics Technician
<b>AWL</b>	Above Water Level
<hr/> <b><i>B</i></b> <hr/>	
<b>BA</b>	Basic Aircrewmember
<hr/> <b><i>C</i></b> <hr/>	
<b>C2</b>	Command and Control
<b>C3I</b>	Command, Control, Communications and Intelligence
<b>CAP</b>	Civil Air Patrol
<b>CASB</b>	Commandant's Aviation Safety Board
<b>CATCH</b>	Computer Approach to Coupled Hover
<b>CATP</b>	Cadet Aviation Training Program
<b>CEA</b>	Command Enlisted Advisor
<b>CFIT</b>	Controlled Flight into Terrain
<b>CFR</b>	Code of Federal Regulations



<b>CVFDR</b>	Cockpit Voice/Flight Data Recorder
<b>CGAS</b>	Coast Guard Air Station
<b>CGQC</b>	Coast Guard Qualification Code
<b>CGTO</b>	Coast Guard Technical Order
<b>CISD</b>	Critical Incident Stress Debriefing
<b>CISM</b>	Critical Incident Stress Management
<b>CMH</b>	Crew Mission Hours
<b>CO</b>	Commanding Officer
<b>COMMSTA</b>	Coast Guard High Frequency Radio Communications Station
<b>CONUS</b>	Continental United States
<b>COTP</b>	Captain of the Port
<b>CP</b>	Copilot
<b>CRM</b>	Crew Resource Management
<b>CSAR</b>	Combat Search And Rescue

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***D***

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<b>DCA</b>	Direct Commission Aviator
<b>DIFDEN</b>	Duty Involving Flying - Denied
<b>DIFOPS</b>	Duty Involving Flying - Operations
<b>DIFPRO</b>	Duty Involving Flying - Proficiency
<b>DIW</b>	Dead in the Water (i.e., a vessel without power)
<b>DM</b>	Dropmaster
<b>DMB</b>	Datum Marker Buoy
<b>DME</b>	Distance Measuring Equipment
<b>DoD</b>	Department of Defense
<b>DOT</b>	Department of Transportation



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<b><i>E</i></b>	
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<b>EAL</b>	Electronic Aircraft Logbook
<b>ELT</b>	(1) Emergency Locator Transmitter (2) Enforcement of Laws and Treaties
<b>EMI</b>	Electro-Magnetic Interference
<b>EML</b>	Environmental and Morale Leave
<b>EOCT</b>	End Of Course Test
<b>EPIRB</b>	Emergency Position Indicating Radio Beacon
<b>ERD</b>	Emergency Recovery Device
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<b><i>F</i></b>	
<hr/>	
<b>F/W</b>	Fixed-Wing
<b>FAA</b>	Federal Aviation Administration
<b>FAR</b>	Federal Aviation Regulations
<b>FE</b>	Flight Engineer
<b>FEB</b>	Flight Examining Board
<b>FL</b>	Flight Level (in hundreds of feet; e.g., FL 180' = 18,000 feet)
<b>FLIP</b>	Flight Information Publication
<b>FLIR</b>	Forward Looking Infrared
<b>FLIR/EO</b>	Forward Looking Infrared/Electro Optics
<b>FM</b>	(1) Flight Mechanic (2) Frequency Modulation
<b>FOD</b>	Foreign Object Debris
<b>FP</b>	First Pilot
<b>FS</b>	Flight Surgeon
<b>FSB</b>	Flight Standards Board



**FSO** (1) Flight Safety Officer  
(2) Flight Services Officer

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***G***

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**GCA** Ground Controlled Approach  
**GP** General Planning (as used in FLIPs)  
**GPS** Global Positioning System  
**GSO** Ground Safety Officer  
**GPWS** Ground Proximity Warning System

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***H***

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**HDIP** Hazardous Duty Incentive Pay  
**HF** High Frequency Radio Waves  
**HIFR** Helicopter In-Flight Refueling  
**HIRL** High Intensity Runway Light system  
**HITRON** Helicopter Interdiction Tactical Squadron  
**HQBA** Hoist Qualified Basic Aircrewmember  
**HUD** Head Up Display

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***I***

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**IAP** Instrument Approach Procedures  
**IAS** Indicated Air Speed  
**ICAO** International Civil Aviation Organization  
**ICS** Intercommunication System  
**ID** Identification  
**IFF** Identification, Friend or Foe  
**IFR** Instrument Flight Rules  
**IFT** Individual Flight Time



<b>IIP</b>	International Ice Patrol
<b>ILS</b>	Instrument Landing System
<b>IMC</b>	Instrument Meteorological Conditions
<b>INS</b>	Inertial Navigation System
<b>IP</b>	Instructor Pilot
<b>IR/UV</b>	Infrared and Ultraviolet
<b>ISAR</b>	Inverse Synthetic Aperture Radar
<b>ITO</b>	Invitational Travel Orders

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***J***

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<b>JCS</b>	Joint Chiefs of Staff
<b>JFACC</b>	Joint Force Air Component Commander
<b>JFC</b>	Joint Force Commander
<b>JFMCC</b>	Joint Force Maritime Component Commander
<b>JOOD</b>	Junior Officer Of the Day

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***K***

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<b>KIAS</b>	Indicated Air Speed expressed in Knots
<b>KTAS</b>	True Air Speed expressed in Knots

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***L***

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<b>LE</b>	Law Enforcement
<b>LM</b>	Loadmaster
<b>LOM</b>	Compass Locator at the Outer Marker of the ILS
<b>LORAN</b>	Long Range Aids to Navigation
<b>LPC</b>	Low Pressure Chamber
<b>LRS</b>	Long Range Surveillance





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***M***

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<b>M</b>	Air speed expressed in Mach number
<b>MAA</b>	(1) Maximum Authorized IFR Altitude (2) Master At Arms
<b>MAB</b>	Mishap Analysis Board
<b>MALS</b>	Medium Intensity Approach Light System
<b>MALSR</b>	Medium Intensity Approach Light System with Runway alignment light indicator lights
<b>MATCH</b>	Manual Approach To Controlled Hover
<b>MC</b>	Mission Commander
<b>MCA</b>	Minimum Crossing Altitude
<b>MDA</b>	Minimum Descent Altitude
<b>MDA/DH</b>	Minimum Descent Altitude/Decision Height
<b>MEA</b>	Minimum En route Altitude
<b>MEDEVAC</b>	Medical Evacuation
<b>MEP</b>	Marine Environmental Protection
<b>MHz</b>	Megahertz
<b>MIO</b>	Marine Inspection Office
<b>MM</b>	ILS Middle Marker
<b>MOCA</b>	Minimum Obstacle Clearance Altitude
<b>MRA</b>	Minimum Reception Altitude
<b>MRR</b>	Medium Range Recovery
<b>MRS</b>	Medium Range Surveillance
<b>MSL</b>	Mean Sea Level
<b>MSO</b>	Marine Safety Office
<b>MVA</b>	Minimum Vectoring Altitude



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***N***

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<b>N</b>	Navigator
<b>NDB</b>	Non-Directional Beacon
<b>NMC</b>	Not Mission Capable
<b>NMCB</b>	Not Mission Capable - Both
<b>NMCM</b>	Not Mission Capable - Maintenance
<b>NMCS</b>	Not Mission Capable - Supply (i.e., waiting for parts)
<b>NSF</b>	National Science Foundation
<b>NTSB</b>	National Transportation Safety Board
<b>NVD</b>	Night Vision Device
<b>NVG</b>	Night Vision Goggles

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***O***

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<b>OCONUS</b>	Outside Continental United States
<b>ODO</b>	Operations Duty Officer
<b>OM</b>	ILS Outer Marker
<b>OPAREA</b>	Operating AREA
<b>OPBAT</b>	Operation Bahamas and Turks and Caicos
<b>OPCEN</b>	Operations Center
<b>OPCON</b>	Operational Control
<b>OSC</b>	On Scene Coordinator

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***P***

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<b>P</b>	Pilot
<b>PAR</b>	Precision Approach Radar
<b>PATCH</b>	Precision Approach to a Coupled Hover
<b>PCS</b>	Permanent Change of Station



<b>PDS</b>	Primary Duty Station
<b>PED</b>	Personal Electronic Device
<b>PFD</b>	Personal Flotation Device
<b>PIC</b>	Pilot In Command
<b>PROS</b>	Palletized Radar Operator's Station
<b>PUI</b>	Pilot Under Instruction

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**R**

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<b>R</b>	Radio Operator
<b>R/T</b>	Receiver/Transmitter
<b>R/W</b>	Rotary-Wing
<b>RCC</b>	Rescue Coordination Center
<b>RCO</b>	Reverse Cycle Operations
<b>REIL</b>	Runway End Identification Lights
<b>RFB</b>	Ready For Bravo
<b>RNAV</b>	Area Navigation
<b>RON</b>	Remain Overnight
<b>RS</b>	Rescue Swimmer
<b>RVR</b>	Runway Visual Range

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**S**

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<b>SAR</b>	Search and Rescue
<b>SAREX</b>	Search and Rescue Exercise
<b>SARFND</b>	Search and Rescue Fundamentals course
<b>SCATANA</b>	Security Control of Air Traffic And Navigational Aides
<b>SCUBA</b>	Self-Contained Underwater Breathing Apparatus
<b>SDAP</b>	Special Duty Assignment Pay



<b>SDO</b>	Senior Duty Officer
<b>SE</b>	Single Engine
<b>SLAR</b>	Side Looking Airborne Radar
<b>SLDMB</b>	Self-Locating Datum Marker Buoy
<b>SOFT</b>	Safety Of Flight Test
<b>SRR</b>	Short Range Recovery
<b>SSO</b>	Sensor Systems Operator
<b>SWET</b>	Shallow Water Egress Training

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***T***

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<b>TA</b>	Transportation Authorization
<b>TACAN</b>	Tactical Aid to Navigation
<b>TACON</b>	Tactical Control
<b>TAD</b>	Temporary Additional Duty (USCG)
<b>TAS</b>	True Air Speed
<b>TCAS</b>	Traffic Alert and Collision Avoidance system
<b>TDY</b>	Temporary Duty (DoD)
<b>TO</b>	Technical Observer
<b>TOLD</b>	Takeoff and Landing Data
<b>TRC</b>	Thermal Recovery Capsule

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***U***

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<b>UHF</b>	Ultra High Frequency radio
<b>UR</b>	Unsatisfactory Report of Aeronautical Material
<b>USAF</b>	United States Air Force
<b>UTC</b>	Universal Time Coordinated (Zulu time)



<hr/> <b>V</b> <hr/>	
<b>V1</b>	takeoff decision speed (formerly denoted as critical engine failure speed)
<b>V2</b>	takeoff safety speed
<b>V2min</b>	minimum takeoff safety speed
<b>VA</b>	Department of Veterans Affairs
<b>VERTREP</b>	Vertical Replenishment
<b>VFR</b>	Visual Flight Rules
<b>VHF</b>	Very High Frequency radio
<b>VIP</b>	Very Important Person
<b>VMC</b>	Visual Meteorological Conditions
<b>VNE</b>	Velocity Not to Exceed
<b>VOR</b>	Very high frequency Omnidirectional Range station
<b>VORTAC</b>	Collocated VOR and TACAN
<b>VR</b>	Takeoff rotation speed
<b>VS</b>	Stalling speed or the minimum steady flight speed at which the airplane is controllable
<b>VSO</b>	Stalling speed or the minimum steady flight speed in the landing configuration
<hr/> <b>X</b> <hr/>	
<b>XO</b>	Executive Officer
<hr/> <b>Z</b> <hr/>	
<b>Z</b>	Zulu Time or Universal Time Coordinated





## GLOSSARY

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### A

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<b>Actual Cost</b>	All costs associated with the use and operation of a Coast Guard aircraft.
<b>Actual Instrument Conditions</b>	Conditions external to the aircraft, which require the pilot to control the attitude of the aircraft primarily through reference to flight instruments. Time is credited to all pilots at flight control positions, but only the pilot logging <b>first pilot time</b> during an approach may be credited with that approach.
<b>Adequate Crew Rest Facilities</b>	At a minimum, adequate crew rest facilities consist of an enclosed building, sheltering the crew from the elements, capable of maintaining a comfortable temperature/humidity environment, equipped with comfortable furniture, food/storage preparation capability, head facilities, water supply, lighting, and providing a comfortable noise level. NOTE: Adequate crew rest facilities for crews on alert duty for more than 12 consecutive hours must provide suitable sleeping quarters.
<b>Aerial Port of Debarkation (APOD)</b>	The destination of an overseas airlift mission.
<b>Aerial Port of Embarkation (APOE)</b>	The origin of an overseas airlift mission.
<b>Aeromedical Space Available Patients</b>	Patients evaluated by competent medical authority and referred to another medical facility due to inadequate medical care in the local area, and whose travel would not otherwise be funded by the Coast Guard. This category is separate from that of the Military Space Available Travel Program.
<b>Air Defense Identification Zone (ADIZ)</b>	The area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security.
<b>Air Traffic</b>	Aircraft operating in the air or on the airport surface, exclusive of loading ramps and parking areas.
<b>Air Traffic Control (ATC)</b>	A service operated by the appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.



<b>Aircraft</b>	A device used or intended to be used for flight in the air.
<b>Aircraft Category</b>	A broad classification of aircraft, i.e., fixed-wing or rotary-wing.
<b>Aircraft Commander (AC)</b>	A pilot who has completed more training and flight hours than a First Pilot (FP). Always eligible to be assigned as Pilot in Command (PIC).
<b>Aircraft Operating Hours</b>	Operating hours begin when an aircraft departs its unit on a specific sortie and ends when the aircraft returns to that unit. Normally, all time spent away from an assigned unit except maintenance and storage time will be included.
<b>Aircraft Time</b>	All time officially creditable to an individual aircraft. Aircraft time begins when the aircraft first moves forward on its takeoff run or when it takes off from its point of support. Aircraft time ends when the aircraft comes to a stop after airborne flight with all engines shut down. If the engines are kept running for maintenance tests, or any other purposes and no further flight is intended, aircraft time shall end when the aircraft is stopped for such purpose. Aircraft time ends when a change is made to the pilot in command
<b>Aircrew</b>	Every person assigned as a crewmember to an aircraft for a flight.
<b>AIREYE</b>	A specially equipped Coast Guard HU-25B with specialized sensors to detect and map oil spills.
<b>Airplane</b>	An engine-driven, fixed-wing aircraft, heavier than air that is supported in flight by the dynamic reaction of air against its wings.
<b>Alert Duty</b>	A person is on alert duty when in a ready status to proceed on a mission as soon as the need becomes known. Applies to BRAVO ZERO or STRIP ALERT status.
<b>Alpha Status</b>	See Operating Status.
<b>Annual Requirement</b>	A training evolution that must be completed no more than 12 months after the previous completion of the same evolution.
<b>Area Navigation (RNAV)</b>	A method of navigation that permits aircraft operations on any desired course within the limits of self contained system capability.
<b>Armed Forces Reserve Personnel</b>	Includes personnel of the U.S. Coast Guard, Army, Navy, Marine Corps, and Air Force Reserves.
<b>Autorotation</b>	A rotary-wing aircraft flight condition in which the lifting rotor is driven entirely by action of the air when the rotary-wing aircraft is in motion.





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**B**

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**Bravo Status**

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See **Readiness Status**

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**C**

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**Calendar Year Requirement**

A training evolution that must be completed no less than once per year, from 1 January to 31 December.

**Calibrated Air Speed**

The indicated air speed of an aircraft, corrected for position and instrument error. Calibrated air speed is equal to true air speed in standard atmosphere at sea level.

**Charlie Status**

See **Maintenance Status**

**Clearance**

Permission to execute a definite aircraft movement.

**Coast Guard Aircraft**

Any owned, leased, rented, or chartered aircraft held and/or operated by or for the Coast Guard.

**Cocked**

An aircraft in a BRAVO ZERO (B-0) readiness status is said to have been “cocked” when the pre-engine-start portion of an approved rapid response checklist has been completed but takeoff is not necessarily imminent. This is done to minimize launch time. (See also “**Strip Alert.**”)

**Command Center**

Coast Guard district center that is responsible for coordinating all activities within the AOR. Has responsibility for prioritizing and authorizing operations of district assets. Formally known as RCCs or OPCENs.

**Competent Medical Authority**

A military, civilian, or contract physician of the U.S. Coast Guard, Department of Defense, U.S. Public Health Service, or Department of Veterans Affairs.

**Confined Areas**

An area that contains objects or obstacles that may be a strike hazard within one wingspan or rotor disk diameter in any direction and along the path of an aircraft.

**Controlled Airspace**

An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

**Copilot**

A pilot who has completed the initial training and flight hours necessary to fly. Not yet eligible to be assigned as Pilot in Command (PIC).



<b>Copilot Time</b>	That time a pilot spends at a flight control position of multi-piloted aircraft but is not the pilot operating the flight controls. For any flight, the total copilot time credited to pilots shall not exceed the aircraft time.
<b>Crash Equipment</b>	Aircraft firefighting and rescue equipment appropriate for the aircraft being protected as specified by the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).
<b>Crew Mission Time</b>	Commences with the start of preflight duties and ends with the completion of post flight duties for each sortie. Crew mission time for multiple sorties is cumulative unless 10 hours of rest occurs between sorties. If adequate crew rest facilities are not available between multiple sorties, crew mission time shall continue to accrue.
<b>Critical Engine</b>	The engine whose failure would most adversely affect the performance or handling qualities of an aircraft.
<hr/> <b>D</b> <hr/>	
<b>Deadheading</b>	An aircrew member being transported to or from a staging area. One half of the number of flight hours spent deadheading shall count as crew mission time. Deadheading time shall not count as part of an off duty period.
<b>Decision Height</b>	The height at which a decision must be made, during an ILS or a PAR instrument approach, to either continue the approach or to execute a missed approach.
<b>Designation</b>	A crewmember's qualification in aircraft type (e.g., Flight Mechanic in the HH-60, First Pilot in the C-130, etc.).
<b>Dispersants</b>	Substances used to remove oil from the surface of water, distributing it as small droplets into the water column where it is rapidly diluted by currents and converted into harmless products by natural biodegradation processes.
<b>DOT Senior Level Officials (DSLO)</b>	The DOT Secretary, the Coast Guard Commandant, and the Administrator of the FAA; includes the Deputy Secretary of Transportation, the Coast Guard Vice Commandant, and the FAA Deputy Administrator when these officials are representing their principals.



**Duty** Signifies a person who is engaged in the performance of any official Coast Guard business, whether ground or flight. This includes time subject to immediate recall for aircrew or other assignment.

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## ***E***

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**Egress Breathing Device** Any underwater breathing device designed and authorized for aircraft egress.

**Employment Hours** The flight hours which are expended while benefiting a particular mission area.

**Endurance** An aircraft's ability to remain aloft for a period of time, limited by the amount of fuel an aircraft carries, the rate at which the fuel is burned, and by the requirement to maintain an adequate fuel reserve for landing.

**External Load** A load that is carried, or extends, outside of the aircraft fuselage.

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## ***F***

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**Familiarization Flights** See "Orientation Flights."

**Ferry Flight** A flight from the original point of departure to the movement destination for the exclusive purpose of transferring the aircraft between two locations.

**Ferry Pilot** A Coast Guard aviator designated as Pilot in Command (PIC) of a ferry flight.

**First Pilot (FP)** A pilot who has completed more training and flight hours than a Copilot (CP). First Pilots are eligible to be assigned as Pilots in Command (PICs) on most, but not all, flights.

**First Pilot Time** That time actually spent operating the aircraft flight controls. When two pilots are at flight control positions, credit for first pilot time is given to whichever pilot is operating the flight controls. For any flight, the total first pilot time credited to pilots must equal the aircraft time.

**Flight Crewmember** Any person aboard the aircraft, either designated or in training to be designated, who is performing in-flight duties relating to the mission of the aircraft (e.g.: pilot, dropmaster, etc.)

**Flight Examiner** An instructor who has been designated, in writing, by the commanding officer to conduct ground and flight checks.


**Flight Information Publication (FLIP)**

Military publication that provides information on aeronautical procedures and airport facilities.

**Flight Level**

A level of constant atmospheric pressure related to a reference datum of 29.92 inches of mercury. Each is stated in three digits that represent hundreds of feet. For example, flight level 250 represents a barometric altimeter indication of 25,000 feet; flight level 255, an indication of 25,500 feet.

**Flight Time**

Flight Time is all time officially creditable to an aircraft flight crew.

**Flight Verification Check**

An airborne functional check of components or systems whose failure would not adversely affect flight safety or seriously affect mission accomplishment.

**Flight Visibility**

The average forward horizontal distance, from the cockpit of an aircraft in flight, at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.

**Full Coach Fare**

A coach fare available to the general public between the day that the travel was planned and the day the transportation is to occur.

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***G***


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**Ground Visibility**

The prevailing horizontal visibility near the earth's surface as reported by the United States National Weather Service or an accredited observer.

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***H***


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**Helicopter**

A rotary-wing aircraft that, for its horizontal motion, depends principally on its engine-driven rotors.

**Hot Refueling**

Refueling an aircraft with the engine(s) and/or the auxiliary power unit operating.

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***I***


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**Indicated Air Speed**

The speed of an aircraft as shown on its pitot static air speed indicator uncorrected for air speed system errors.

**Individual Flight Time**

Individual flight time comprises all time officially creditable to individual flight crewmembers, technical observers, and other mission essential non-crewmember personnel on flight orders. Individual flight time for a given flight shall be the amount of time the individual was aboard an aircraft, participating in the flight as an integral flight crewmember, technical observer or other mission essential personnel for the assigned mission, while that aircraft was accumulating aircraft time on that flight. All other personnel not so actively engaged (e.g., passengers for transportation or orientation) are prohibited from logging individual flight time. Individual flight time may include time spent performing activities while outside the aircraft by a member of that aircraft's assigned flight crew, and which are in direct support of that aircraft's mission for that flight (e.g., rescue swimmer). An individual's flight time accumulation shall cease if the crewmember is left behind when the aircraft departs scene, and will commence again when the crewmember becomes involved as an integral flight crewmember with another aircraft.

**Instructor Pilot Time**

That time actually spent exercising control over a flight in which syllabus instruction or a flight check is given. Training given during normal operational flights is not instructor pilot time.

**Instrument Time**

That time a pilot occupies a flight control position while under **actual instrument conditions** or **simulated instrument conditions**, regardless of whether day or night. Flying "on top" shall not be credited as instrument time unless conditions actually require reliance on instruments.

**Instrument Flight Rules (IFR)**

Set of procedures that must be followed when flying in Instrument Meteorological Conditions (IMC).

**Instrument Meteorological Conditions (IMC)**

Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

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***L***


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**Large Aircraft**

Aircraft of more than 12,500 pounds maximum certificated weight.

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***M***


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**Mach Number**

The ratio of true air speed to the speed of sound.

**Main Rotor**

The rotor that supplies the principal lift to a rotary-wing aircraft.



<b>Maintenance Status (Code Title: CHARLIE)</b>	Signifies aircraft that are inoperable because of required maintenance. This maintenance cannot be done as part of the normal pre-flight or post-flight inspections, or in an amount of time that would not delay a BRAVO ZERO aircraft departure. The degree of Maintenance Status shall be assigned on the basis of total time estimated for repairs or to perform such work required to prepare the aircraft for Readiness Status, and will be stated using an RFB (Ready for Bravo) date-time group (e.g. CHARLIE RFB 031200Z or 031200 (local)).
<b>Military Space Available Travel</b>	Travel on Coast Guard aircraft for the secondary purpose of transportation that is extended to specified categories of personnel between specified locations in seats not required for aircraft Mission Requirements personnel, Required Use passengers, or other official passengers.
<b>Minimum Descent Altitude</b>	The lowest altitude expressed in feet above sea level, to which descent is authorized on final approach or during circling to land maneuvering when executing a standard instrument approach procedure where no electronic glide slope is provided.
<b>Mission Essential Personnel</b>	Non-crewmembers being airlifted for the purpose of participating in an activity constituting the discharge of Coast Guard Mission Requirement duties, in flight or on the surface (e.g., law enforcement personnel being transported to the location of a drug case, marine inspectors being transported to inspect offshore facilities, ATON personnel being transported to repair a light structure, rescue or disaster victims, MEDEVAC patients, or search teams). Mission essential personnel are not passengers.
<b>Mission Requirements Use</b>	Those activities constituting the discharge of Coast Guard support of programs that must be accomplished to carry out official responsibilities. Such activities include airlift of mission essential personnel and/or equipment in support of SAR, LE, MEP, ATON and other programs associated with mission Employment Categories listed in the Abstract of Operation Reports, COMDTINST M3123.7 (series).
<b>Model</b>	A specific version of an aircraft type (e.g., C-130H, HH-60A).
<b>Monthly Requirement</b>	A training sequence that must be completed once in each calendar month (e.g., a sequence that was completed on 1 July must be repeated by 31 August).



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## N

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<b>Night Adapted</b>	A flight crewmember that has been placed in a night orientation for four or more nights. The flight crewmember must be afforded adequate crew rest facilities allowing 10 uninterrupted hours of daytime rest. Based on a shift of the body's internal clock per 24-hour period, the member should be adapted for continuous reverse cycle operations by night four and following. See Appendix D for further guidance on night adaptation strategies.
<b>Night Time</b>	The time a pilot occupies a flight control position in flight between the official time of sunset and sunrise (on the surface below the aircraft) regardless of whether visual or instrument conditions.
<b>Night Vision Goggle (NVG) Time</b>	That time when a pilot occupies a flight control position in flight between official sunset and official sunrise (on the surface below the aircraft) and is using NVGs. (Level 0 NVG hours do not apply to "NVG Time.")
<b>Non-Crew Member</b>	An officer or enlisted member, other than a crew member, who is physically qualified for flying duty in accordance with the Medical Manual and who is ordered to duty involving flying to perform in flight a function for which qualified and which directly contributes to an essential element of the aircraft's flying mission and can not be performed by the aircraft's assigned crew members.
<b>Non-Official Passenger/Traveler</b>	Any person for whom the Federal Government is not authorized to pay or reimburse transportation or other travel expenses for a particular trip.
<b>Non-Precision Approach Procedure</b>	A standard instrument approach procedure in which no electronic glide slope is provided.
<b>Not Mission Capable (NMC)</b>	When the aircraft is unable to operate due to: (1) maintenance work that was necessary but could not be performed due to unavailable supplies (NMCS); (2) maintenance work that had to be performed with supplies available (NMCM); or (3) both (NMCB).



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**O**

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<b>Official Passenger/Traveler</b>	Any person for whom the Federal Government is authorized to pay or reimburse transportation or other travel expenses for a particular trip. This definition includes, but is not limited to: active duty Uniformed Services personnel, Federal employees on official business (including those from other agencies on official Federal Government business), Reserve/National Guard members when in a duty status on official orders, and regular members of the Coast Guard Auxiliary in performance of Auxiliary activities (see Auxiliary Manual, COMDTINST M16790.1 (series)).
<b>Official Transportation</b>	Includes transportation to meet Mission Requirements, Required Use transportation, and other transportation for the conduct of DOT/Coast Guard official business.
<b>Operating Status (Code Title: ALPHA)</b>	Status achieved when aircraft is performing a specific mission or task (e.g., an aircraft engaged in a specific search and rescue, law enforcement, administrative, patrol, training, test, ferry, logistics, or other operation). Aircraft temporarily deployed from their assigned station to another unit for other than SAR readiness or for duty under Navy operational control are in Alpha status.
<b>Orientation Flights</b>	Flights intended to afford first-hand opportunities to observe the missions of Coast Guard aviation, secondary to an assigned primary purpose of the flight and not used for point-to-point transportation.
<b>Other Transportation For the Conduct of DOT/Coast Guard Official Business</b>	Transportation on Coast Guard aircraft that may be approved only if such use is cost effective, or if no commercial airline or aircraft service, including charter, is reasonably available to effectively fulfill the traveler's requirement.
<b>Overseas</b>	Any country or place beyond the contiguous 48 states of the continental United States (CONUS) is overseas for travel and transportation purposes.






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**P**


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<b>Passenger/Traveler</b>	Any person transported on a Coast Guard aircraft other than the flight crewmembers and mission-essential personnel. See DOT Order 6050.1B.
<b>Pilot in Command (PIC)</b>	The pilot who has been assigned by proper authority to take charge of the aircraft and be responsible for a specific flight or mission. Normally, the PIC is the senior pilot in the aircraft holding the highest designation in type.
<b>Positive Control</b>	Control of all air traffic, within designated airspace, by air traffic control.
<b>Precision Approach Procedure</b>	Procedure in which an electronic glide slope is provided, such as ILS or PAR.
<b>Program Hours</b>	Number of hours per year assigned to a particular type of aircraft based on budget considerations for operation and maintenance costs.
<b>Prohibited Area</b>	Designated airspace within which the flight of aircraft is prohibited.
<b>Public Aircraft</b>	Aircraft used only in the service of a government or political subdivision, not including government-owned aircraft carrying persons or property for commercial purposes.

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**R**


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<b>Range</b>	The maximum distance that can be covered on a single flight sortie.
<b>Readiness Requirements</b>	The degree of readiness required of an air unit; prescribed by the operational commander.
<b>Readiness Status (Code Title: BRAVO)</b>	Signifies aircraft in potential working status when not in Operating Status or Maintenance Status. An aircraft in Readiness Status shall be ready to proceed within a status period after receipt of orders or information requiring its movement. BRAVO ZERO shall be construed to mean that facilities (material and personnel) are ready to proceed with a minimum of delay. The crew of an aircraft in BRAVO ZERO status need not be kept in the immediate vicinity of the aircraft. However, the crew shall be readily available so that the aircraft can proceed within 30 minutes from the time of notice. Similarly, the crew of a BRAVO 'X' aircraft must be able to proceed within 'X' hours. The degree of Readiness Status shall be assigned solely on the basis of personnel availability and not for material or maintenance purposes.



<b>Ready For BRAVO (RFB)</b>	An indication of the degree of Maintenance Status, which is assigned based on total time, estimated for repairs or to perform such work required to prepare the aircraft for Readiness Status. The date and time when the repairs will be completed is part of this designation.
<b>Reasonably Available</b>	Commercial airline or aircraft (including charter) available to meet the traveler's departure and arrival requirements within a 24-hour period unless the traveler demonstrates in writing that extraordinary circumstances require a shorter period.
<b>Recovered Patient</b>	An individual discharged from treatment by a competent medical authority and who is physically able to travel unattended.
<b>Remote Locations</b>	Geographic locations not reasonably accessible to regularly scheduled commercial airline service, specified by area/district commanders.
<b>Reporting Custodian</b>	The unit assigned physical custody of aircraft to be used in performing that unit's mission.
<b>Required Use Transportation</b>	Use of a Coast Guard aircraft for the transportation of a DOT/Coast Guard official/employee in which using the aircraft is required because of bona fide communications or security needs of the traveler's organization, or exceptional scheduling requirements.
<b>Resource Hours</b>	Hours accumulated by an aircraft when operating. See the Abstract of Operations Reports, COMDTINST M3123.7 (series).
<b>Restricted Area</b>	Designated airspace within which the flight of aircraft, while not wholly prohibited, is subject to restriction.
<b>Reverse Cycle Operations</b>	Repeated nights of scheduled sorties or unscheduled flight operations of the same flight crewmember requiring crew mission time from 0000 to sunrise (0600 rather than sunrise for extreme latitudes). See Appendix D for further planning and scheduling guidance for reverse cycle operations.
<b>Rotary-Wing Aircraft</b>	A heavier-than-air aircraft that principally depends on the lift generated by one or more rotors for its support in flight.

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## S

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<b>Second in Command</b>	A pilot designated to be second in command of an aircraft during flight.
<b>Semi-Annual Periods</b>	Six-month periods beginning on the first of January and the first of July of each calendar year.



<b>Semi-Annual Requirement</b>	A training sequence or group of sequences that must be completed during each semi-annual period.
<b>Senior Executive Branch Officials (SEBO)</b>	Civilian officials appointed by the President with the advice and consent of the Senate, and civilian employees of the Executive Office of the President (EOP).
<b>Senior Federal Officials (SFO)</b>	DOT/Coast Guard and other Federal employees having a rate of pay equal to or greater than the minimum rate of basic pay for the Senior Executive Service (SES). Coast Guard officers serving in the pay grades of O-9 and O-10 are included in this definition.
<b>Simulated Instrument Conditions</b>	Conditions external to the aircraft are visual, but the pilot flies the aircraft solely by reference to instruments. Time and approaches are credited only to the pilot logging <b>first pilot time</b> .
<b>Small Aircraft</b>	Aircraft of less than 12,500 pounds maximum certificated weight.
<b>Space Available</b>	Transportation using the capacity of an aircraft already scheduled for use for an official purpose when that capacity would otherwise be unused.
<b>Space Required Passengers</b>	Any eligible person evaluated by competent medical authority and referred to another medical facility due to inadequate medical facilities in the local area.
<b>Special VFR Operations</b>	Aircraft operating in accordance with clearances within controlled airspace in meteorological conditions less than the basic VFR weather minima.
<b>Squawk</b>	To transmit a specific IFF transponder code in a specific mode, as in "Squawk mode 3 code 1277."
<b>STRIP ALERT</b>	A special type of readiness status construed to mean that facilities are ready to proceed within a specified number of minutes from notice, i.e., less than 30 minutes, but not less than 15 minutes.

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## ***T***

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<b>Takeoff Safety Speed</b>	A referenced air speed obtained after liftoff at which the required one-engine-inoperative climb performance can be met.
<b>Technical Observer</b>	A person other than an aviator who is ordered to duty involving flying because of special knowledge, experience, or skill, when these qualities are required in flight to more effectively accomplish Coast Guard missions.



<b>Test Flight</b>	An airborne functional check to establish if an airframe or equipment, while subject to design environment, is operating properly.
<b>Third Pilot Time</b>	That time a pilot in a three pilot flight crew spends performing navigational duties at the navigator's position in a C-130 aircraft. For any flight, the total Third Pilot Time credited to pilots shall not exceed the aircraft time.
<b>Total Pilot Time</b>	That time spent at a flight control position (in an authorized aircraft or simulator) by Coast Guard aviators and student pilots who are assigned duty involving flying. It consists of First Pilot Time and Copilot Time.
<b>Transportation</b>	The act of moving personnel and/or cargo from point A to point B on a Coast Guard aircraft.
<b>True Air Speed</b>	The air speed of an aircraft relative to undisturbed air.
<b>Type</b>	A specific kind of aircraft, such as HH-65, HU-25, HC-130, etc.

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## *U*

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<b>U.S. Uniformed Services</b>	Includes the Coast Guard, Army, Navy, Marines, Air Force, the Commissioned Corps of the U.S. Public Health Service, and the National Oceanic and Atmospheric Administration.
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**V**

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<b>Vertical Replenishment (VERTREP)</b>	Delivery of supplies by aircraft versus by ship.
<b>Visual Flight Rules (VFR)</b>	Set of procedures, which must be followed when flying in Visual Meteorological Conditions (VMC).
<b>Visual Meteorological Conditions (VMC)</b>	Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling equal to or better than specified minima, allowing flight by visual reference to the ground to be safely conducted.





# CHAPTER 1: OVERVIEW OF COAST GUARD AIR OPERATIONS

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# Chapter 1. Overview of Coast Guard Air Operations

## Overview

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### Introduction

This chapter provides an introduction to the Coast Guard Air Operations Manual, COMDTINST M3710.1 (series). A basic overview of policy and procedures is presented.

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### In this chapter

This chapter is divided into seven sections:

- Introduction
  - Authority and Control of Flights
  - Transportation
  - Conduct of Flights
  - Safety
  - Training
  - Mission Planning
-



## Section A. Introduction

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### **A.1. Mission of Coast Guard Aviation**

Official Coast Guard mission programs are listed in the Abstract of Operation Reports, COMDTINST 3123.7 (series). Coast Guard Aviation is an operations and logistics component used to support Coast Guard mission programs using all multi-mission air assets.

Operational response is the primary mission of Coast Guard aircraft. For this reason, aircraft capabilities are founded primarily on SAR, ELT, MEP, Military Readiness and other missions requiring operational response.

Various aircraft types in the Coast Guard also perform a logistical role, providing a variety of choices to tailor aviation support efficiently for different requirements, including cargo and personnel transportation.

Coast Guard aviation is highly flexible and can be employed quickly to respond to emergent situations. Assets can be expeditiously redistributed across the country temporarily to provide a “surge” capability, or to respond to special missions.

Coast Guard aircraft are assigned a specific number of program hours per year. These hours are divided among the various mission areas supported by Coast Guard aviation.

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## Section A, Introduction, Continued

### A.2. Purpose

This Manual prescribes general operating procedures and flight instructions applicable to all aircraft operated by the Coast Guard. This Manual is also intended to provide aviation doctrine and a description of the Coast Guard aviation program. It can be used as a guide to mission planning and execution, as well as for the exercise of professional judgment by those in aviation and those whose programs require aviation support.

The chapters in and appendixes to this Manual provide guidance to manage aviation and are directive in nature. Proven and safe procedures shall be used in Coast Guard flight operations. The procedures and directives prescribed in this Manual are derived from flight tests and operational experience of the Coast Guard and other Services.

No provision of this Manual relieves personnel of their duty to use sound judgment or to take such emergency action as the situation demands.

#### A.2.a. Procedures

The procedures discussed in this Manual are to be used as guides and shall be carried out with sound professional judgment. This instruction is not intended to cover every contingency that may arise, nor every rule of flight safety and good practice.

Successful operations require the exercise of good judgment and common sense at all levels of command. When the need arises, special instructions or waivers will be issued by Commandant (G-OCA); however, in the operational environment, mission demands may require on-scene deviation from prescribed instructions or procedures when, in the judgment of the pilot in command, such deviation is necessary for safety or the saving of life. Such deviation must not be taken lightly and must be tempered by maturity and a complete understanding of the aircraft, mission, and crew.

#### A.2.b. Generalization

Because of the need to generalize, wording such as “normally,” “etc.,” “usually” and “such as” is employed throughout this Manual. Words or clauses of this nature shall not be used as loopholes, nor shall they be expanded to include a maneuver, situation, or circumstance that should not be performed or encountered.

*Continued on next page*



## Section A, Introduction, Continued

### **A.3. Updates and Changes to this Manual**

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The most current version of this Manual is posted on the Commandant (G-OCA) website at <http://cgweb.comdt.uscg.mil/G-OCA/G-OCA.htm>.

Any requests for changes to this Manual should be forwarded to Commandant (G-OCA) for action.

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## Section B. Authority and Control of Flights

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### **B.1. Primary Authority**

The Commandant has primary authority for the operation of aircraft in the Coast Guard. Subordinate commanders may be delegated authority for flights to accomplish various missions.

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### **B.2. Clearance**

A pilot in command (PIC) receives clearance for a flight from the commanding officer. For scheduled flights, this is accomplished through a published flight schedule. Nonscheduled flights obtain the permission of the commanding officer prior to departure. When this is not possible, such flights may be approved at a lower level. However, they should be approved as soon as possible after the flight (Chapter 2, Paragraph C.2).

Either the commanding officer or the PIC may delay a mission if, in the opinion of either, conditions are not safe. The PIC has final responsibility for the safe conduct of the mission.

Specific guidance as to authority for flights is contained in Chapter 2.

In the case of flights involving transportation of passengers or cargo, guidance may be found in Chapter 5.

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*Continued on next page*



## Section B. Authority and Control of Flights, Continued

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### **B.3. Command and Control**

Command and control (C2) of Coast Guard aviation assets are maintained in a strategic sense by Commandant, in an operational sense by area and district commanders, and in a tactical sense by air station commanders and commanders of vessels with embarked helicopters.

Elements of C2 are delegated to a subordinate command, such as an aviation detachment, when lines of communication are distant or when it is critical to the completion of the mission to have command and control in the actual theater of operations.

Aviation missions are planned with the concurrence of the appropriate operational commander having oversight responsibility.

Except for Air Station Washington, the operational commanders are district or area commanders. One special use aircraft, currently a C-37, is assigned to Air Station Washington and is primarily used as a logistical support aircraft for transporting passengers domestically or internationally. All missions from Air Station Washington are scheduled in advance, and it is unlikely this aircraft will be available for a short-notice mission. Commandant (G-OCA) provides operational oversight of Air Station Washington missions.

Like Air Station Washington, the Coast Guard Aviation Training Center (ATC) in Mobile, AL, is a Headquarters unit. It provides HU-25 aircraft under the operational command of the Eighth District. HH-60 and HH-65 helicopters, as well as some of the HU-25 airplanes at ATC, are used primarily for pilot training with operational oversight by Commandant (G-OCA). Additionally, HH-65 helicopters support polar operations.

All Atlantic Area C-130 aircraft are under the operational command of the area commander. All other Coast Guard aircraft come under the operational command of the district commanders.

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## Section B. Authority and Control of Flights, Continued

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### **B.4. Execution**

Execution of an aviation mission is accomplished at the lowest level possible consistent with management and coordination of all assets participating in the mission.

If only a single aviation asset is involved, the PIC is responsible for the execution of the mission.

If two or more aircraft are operating jointly, the responsibility for the mission normally passes to the PIC of the aircraft with the better communications capabilities.

When working with surface forces, responsibility for coordinating air and surface mission execution normally rests with the surface element having the greatest communications capability.

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## Section C. Transportation

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### C.1. General

The carrying of passengers and cargo on Coast Guard aircraft is strictly regulated. Because of the cost of operating aircraft and the public scrutiny of passenger transportation, it is necessary to ensure passengers who ride on Coast Guard aircraft have a genuine need to do so.

The basic policy for transportation on Coast Guard aircraft is contained in OMB Circular A-126, Improving the Management and Use of Government Aircraft; and 41 CFR Part 101-37. This policy is interpreted by DOT Order 6050.1 (series) (excepts of which are included in this Manual as Appendix C), Management and Use of Department of Transportation Aircraft, providing guidance for all aircraft operated within the Department of Transportation, including Coast Guard aircraft. DOT Order 6050.1 (series) is to be used as the primary reference source when making specific transportation request determinations.

In general, the method of transportation that entails the least cost to the government will be the one employed.

Federal and military regulations prescribe the method of carrying hazardous materials aboard aircraft. The carrying of cargo is subject to regulations similar to the regulations governing the carrying of passengers.

Transporting mission-essential cargo is considered an operational and valid use of an aircraft.

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## Section C. Transportation, Continued

### C.1. General (cont'd)

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The transportation of flammables and other hazardous cargo is strictly regulated by AFJMAN 24-204, Preparing Hazardous Materials For Military Air Shipments. Generally, flammable liquids such as diesel fuel cannot be transported unless they are stored in DOT-approved containers. In situations where the transportation of fuel is required to meet an emergent threat, contingency operations as described in Chapter 3 of AFJMAN 24-204 may be authorized by the operational commanders; fuel may be transported in containers that are suitable but have no DOT approval. An example of such a scenario would be a response to a significant oil spill in an isolated location where fuel is not available to power pollution strike team equipment. A realistic risk-benefit analysis must be completed by the operational commander before contingency operations may be conducted.

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### C.2. Requests for Transport

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When requesting transportation on Coast Guard aircraft, the requesting agency or office must provide sufficient information so that transportation feasibility may be determined.

The general information required to enter the determination process is in Chapter 5 of this Manual.

It is the responsibility of the requester of the transportation, not the Coast Guard unit providing the transportation, to provide this information.

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## Section D. Conduct of Flights

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### D.1. General

A variety of factors shape the manner in which flights are conducted. The guidance concerning the conduct of flights on Coast Guard aircraft is divided into mission planning and mission execution.

This guidance may be found in Chapters 3 and 4 of this Manual.

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### D.2. Risk Management

Pilots manage an aircraft to minimize the inherent risk of critical mechanical failure occurring at the most crucial moment. For example, in a fixed-wing (F/W) aircraft, the determination of an aircraft's ability to take off safely is based on the assumption that the single most critical engine will fail at the most critical point in the takeoff.

If the aircraft is capable of either aborting the takeoff or safely executing the takeoff at the moment of failure, the takeoff is permitted. As another example, an HH-65 helicopter may, under certain conditions, have to enter a hover knowing that if one engine fails during the hover, the helicopter will be unable to maintain flight. Under those circumstances, the pilot must minimize the duration of the maneuver and hover over the clearest and least congested area possible.

This concept of contingency planning is embedded in military, Federal Aviation Administration (FAA), and International Civil Aviation Organization (ICAO) aviation standards.

Operational commanders, commanding officers, and aircraft commanders are faced with making mission decisions, and they carefully weigh the urgency of each mission and assess the benefits to be gained versus the risks involved.

While all possible contingencies cannot be addressed, the following paragraphs establish policy guidelines to be used in making risk versus gain analyses for various aircraft missions.

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#### D.2.a. National Defense

Damage to or sacrifice of the aircraft is acceptable in the defense of the United States, its citizens, and/or installations.

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## Section D. Conduct of Flights, Continued

### D.2.b. Search and Rescue (SAR) and Law Enforcement (LE)

For SAR missions, potential risks to the aircraft and crew shall be weighed against risks to the personnel and/or property in distress if the mission is not undertaken. Probable loss of the aircrew is not an acceptable risk. Additionally, the individuals making the decision shall consider the effects of exposing the personnel in distress to the additional risks associated with flight operations, especially if the physical condition of those persons in distress is already impaired.

In the case of LE, potential risks to the aircraft shall be weighed against the risk of bodily harm to LE personnel, hostages, and innocent parties if the mission is not undertaken.

### D.2.b.(1) Warranted Efforts

The probability of saving human life warrants a maximum effort. When no suitable alternatives exist and the mission has a reasonable chance of success, the risk of damage to or abuse of the aircraft is acceptable, even though such damage or abuse may render the aircraft unrecoverable.

### D.2.b.(2) Warranted Risks — Human Life

The possibility of saving human life or the probability of preventing or relieving intense pain or suffering warrants the risk of damage to or abuse of the aircraft if recovering the aircraft can be reasonably expected.

### D.2.b.(3) Warranted Risks — Property

The probability of saving property of the United States or its citizens warrants the risk of damage to the aircraft if the value of the property to be saved is unquestionably greater than the cost of aircraft damage and the aircraft is fully expected to be recoverable.

### D.2.b.(4) Warranted Risks — Evidence

The possibility of recovering evidence and interdicting or apprehending alleged violators of federal law does not warrant probable damage to or abuse of the aircraft.

### D.2.b.(5) Logistics and Other

Logistics or other missions having little or no urgency shall not be prosecuted if they expose the aircraft to hazards greater than those encountered during the course of routine missions.



## Section E. Safety

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### E.1. General

The fundamental reasons for a comprehensive aviation safety program are the well-being of personnel and the preservation of limited resources. To achieve this goal, the Coast Guard safety program establishes organizational requirements to identify hazardous situations, take corrective actions to reduce risks and/or eliminate danger, and disseminate information to promote the safety and occupational health of military and civilian personnel.

The Safety and Environmental Health Manual, COMDTINST M5100.47 (series), provides specific guidance for the flight safety program.

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#### E.1.a. Background

The concept of flight safety dates back to 1942 when the Army Air Corps suffered more losses in training mishaps than in combat action. To reverse the trend, military leaders implemented a comprehensive aviation safety program that immediately reduced training accident rates. As military pilots migrated to the developing commercial aviation industry, they brought their experience and faith in aviation safety programs with them. Whether in government or commercial aviation, the precept remains the same: ensure flight operations are conducted in the safest possible manner consistent with mission requirements.

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#### E.1.b. Human Factors

During the early 1970s, a succession of mishaps involving “state-of-the-art” commercial airliners renewed interest in aviation safety programs. While analyzing these accidents, National Transportation Safety Board (NTSB) investigators identified “human factors” as a significant and common element.

The realization that “pilot error” was contributing to more and more mishaps caused the FAA, international safety organizations, the military, and commercial airline companies to expend significant energy and money to learn more about “human factors” and their relationship to critical errors by flight crews.

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## Section E. Safety, Continued

### E.1.b.(1) Studies

Human factors studies focused primarily on physical factors impacting the ability of flight crews to exercise good judgment. Chief among those factors was fatigue.

Stressors like constant vibration, loud noises from machinery and radios, illness or poor physical conditioning, improper diet, and irregular or insufficient sleep patterns can create both immediate and long-term (i.e., chronic) fatigue.

Studies indicated any decrease in a flight crewmember's ability to function normally would greatly increase the likelihood of error. This influence becomes particularly significant during operations at night or in poor weather conditions.

### E.2. Monitoring and Controlling

The Coast Guard monitors and controls crew mission days, flight time, and other fatigue-related factors.

Tools like crew utilization standards are not designed to hinder operational commanders in mission planning or execution; rather, they are designed to minimize injury and damage and to preserve limited capital and personnel resources for future use.

### E.3. The Aviation Safety Program

#### E.3.a. Safety Attitude

Effective aviation safety is an attitude, not an add-on. For aviation safety to be truly effective, safety must be a pervasive notion supported by leadership throughout Coast Guard aviation; a team effort focusing operations and engineering with the common goal of improved operational performance by reducing mishap losses.

#### E.3.b. Command Emphasis

Effective aviation (flight) safety requires continuous command emphasis and leadership example. If hazards are recognized and effectively reduced or eliminated, mishap potential will be reduced and the operational effectiveness of the air unit will be enhanced. Experience has shown that a strong command mishap prevention (loss control) policy will reduce aircraft mishap potential and thereby enhance overall mission effectiveness.

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## Section E. Safety, Continued

### E.3.c. Aviation Safety Goal

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The goal of the aviation safety program is to support operational aviation readiness and mission accomplishment that is characterized by mishap-free operations. To accomplish this goal, the program provides for the identification of hazards, the formulation of corrective recommendations to eliminate hazards and reduce risks, and the dissemination of information. The Safety and Environmental Health Manual, COMDTINST M5100.47 (series), outlines the flight safety program in detail.

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### E.3.d. Aviators and Aviation Mishaps

Most mishaps are preventable and are usually the result of human error, mechanical failure or a series of both. Most mechanical failures may be attributed to a human error at some point, either in the design, maintenance, or operation of equipment. If mishaps are to be prevented, it is necessary to detect and guard against human error at every stage of an air operation. This requires a continuous review and communication between all activities affecting aviation operations and maintenance so that mistakes or potential mistakes can be identified, evaluated and corrected.

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### E.3.e. Aviation Mishap Communication

It cannot be over-emphasized that safety review and communication of mishap events (or potential events) is focused solely upon improving procedures and/or equipment and preventing future mishaps. Such review is not meant to punish, criticize, or embarrass personnel involved. Essential to this part of the aviation safety program is a free exchange of information (e.g., aviation mishap messages) on matters relating to the safety of aviation operations. Full and free communication of safety information is essential if safety efforts are to effectively evolve and be proactive to meet changing operational needs.

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### E.3.f. Risk Management

Operational commanders, Command Center Controllers, Air Station Commanding Officers and aircraft commanders are continuously making operational mission decisions. As missions progress, each must weigh and continually reassess the urgency of each mission and assess the benefits to be gained versus the risks involved. The safety of the aircrew and aircraft must always be one of the primary considerations integrated into the fabric of aviation mission planning and execution. The full scope of assets available to support the mission and promote mission safety should be considered.

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## Section E. Safety, Continued

### E.3.g. Crew Participation

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Each individual connected with air operations, whether in an operational or supporting role (e.g., aircrew, scheduling, maintenance), contributes directly to the effectiveness of the aviation safety program. Effective safety is a team effort and requires the active participation of “all hands.” Specific responsibilities and requirements are prescribed in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

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### E.3.h. Mishap Investigation

When a mishap has occurred, it is necessary to investigate and analyze the mishap thoroughly. In this way, full use can be made of all lessons learned from the event. Special procedures for reporting, investigating, and analyzing aircraft mishaps are contained in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series). These procedures are based on the principle that a free and uninhibited exchange of information is vital to the interest of mishap prevention.

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### E.3.i. Aviation Safety Privilege

A thorough understanding of the concept of privilege and confidentiality as used in the safety program is essential for the proper investigation of aviation mishaps. These concepts are critical to the success of the Coast Guard safety program. The concept of privilege is intended to provide for full disclosure of mishap information (which otherwise may not be disclosed) essential to determining the true cause factors during mishap investigation. Only if true causes are identified can effective action be taken to prevent reoccurrence; thereby reducing future injury and damage. When necessary, an assurance of confidentiality is given to a witness in order to obtain complete and candid information about circumstances surrounding a mishap. Further information on the Coast Guard concept of privilege can be found in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

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### E.4. Requests for Grounding

A voluntary request for temporary grounding should not be considered a sign of weakness; it should be treated as an indication of the maturity and sound judgment of the individual involved. The practice of grounding aircraft for maintenance deficiencies is well recognized: a similar attitude should prevail concerning the grounding of aircrew members. Aircrew personnel should consult their flight surgeon, or other doctor, when the slightest doubt as to their fitness exists. Commanding officers should support an unbiased and healthy attitude toward grounding of flying personnel in the interest of mission readiness and operational safety.

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## Section E. Safety, Continued

### E.5. Training

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Realistic training within the bounds of safe propriety is essential to the successful completion of aviation missions. Coast Guard pilots and aircrew must maintain sound knowledge of operational hazards, emergency procedures, aircraft systems, along with a high level of psychomotor skills to operate complex platforms safely and successfully. Such skills deteriorate rapidly if not exercised regularly. Pilots are provided realistic training opportunities in aircraft simulators to experience demanding and potentially catastrophic situations that would not otherwise be feasible due to the risks. Pilots and crews are afforded other training opportunities in flight (e.g., hoisting, air drops, instrument approaches) and on the ground (e.g., egress and survival). Effective and focused use should be made of precious training time to maximize benefit to both individual and crew performance.

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## Section F. Training

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### **F.1. General**

Training is essential to the successful completion of an aviation mission. Pilots and aircrew must maintain high levels of psychomotor skills to operate complex platforms safely and successfully. Such skills rapidly deteriorate if not regularly exercised.

Through a combination of formal transition and upgrade training syllabi, annual proficiency training, annual check flights, and recurrent training, aircrewmembers maintain a high level of effectiveness and performance.

Specific training and aircrew designation requirements are discussed in Chapter 8.

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### **F.2. Standardization of Training and Procedures**

Coast Guard Aviation uses standardized training and procedures to ensure that flight operations are conducted in the safest possible manner consistent with mission requirements. Within any aircraft type, all aircrew will follow the same checklists and use the same procedures in clearly defined circumstances. By adhering to an approved set of standard procedures for repetitive, routine tasks, aviators create a discipline that ensures critical details are not overlooked. Necessary precautions are always taken to ensure the well-being of the crew and the aircraft.

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### **F.3. Standardization and Crew Formation**

Standardization also permits randomly selected aviators to form a disciplined, coordinated crew on any aircraft in which they have been designated as qualified. Any qualified HH-65 aircraft commander can fly an HH-65 with any HH-65 copilot and flight mechanic.

This directly supports aviation's ability to provide a surge capability to meet rapidly escalating situations.

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## Section F. Training, Continued

### **F.4. Standardization — Aviation Training Center**

The Aviation Training Center develops and promulgates standardized flight procedures. It evaluates adherence to these procedures through annual Standardization Program Visits to all operational units. These visits also examine the station's training program, ensure desired skills and standards are taught by designated instructors, review aviator proficiency under actual conditions, and provide refresher training opportunities.

Other aviation training programs which support standardization include one-week annual proficiency checks of all operational pilots using visual flight simulators, Night Vision Goggle (NVG) training, and Cockpit Resource Management training.

### **F.5. Designation and Qualification — Pilots**

Generally, newly qualified pilots arrive at an air station with a designation of Copilot after completing a training syllabus designed to teach them how to fly a particular type of Coast Guard aircraft.

As they gain flight experience, they complete an additional training syllabus to achieve the designation of First Pilot (FP). FPs may be designated as PIC for most, but not all, flight missions.

After gaining more flight experience, FPs complete another training syllabus before they become Aircraft Commanders (ACs) capable of being PIC for any Coast Guard mission.

Some ACs complete another training syllabus leading to the designation of Instructor Pilot (IP) or Pilot Examiner (PE), qualifying them to teach and examine other pilots' progress through training syllabi.

### **F.6. Designation and Qualification — Crewmembers**

Enlisted crewmembers also require in-flight training so they can be designated as Aircrewman, Flight Mechanic (FM), Avionicsman (AV), Radioman, Dropmaster (DM), Sensor Systems Operator (SSO), Flight Engineer (FE), or Navigator (N).

### **F.7. Training Hour Targets**

It has been estimated that approximately 20 percent of all F/W flight hours and 40 percent of rotary-wing (R/W) hours must be dedicated to training so pilots and crewmembers can maintain skill proficiency and complete the various training syllabi leading to the next designation.



## Section G. Mission Planning

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### **G.1. Coordinating Mission Requests**

The operational commander coordinates with the air station commanders to allocate flight hours for each aircraft type for planned Coast Guard missions.

Periodically, a district operations representative receives requests for the use of district aviation assets from the district program managers. Once the requirements are identified, the appropriate office coordinates with the representatives of each air station to schedule known and anticipated missions. The missions are divided on the basis of the most suitable aircraft to do the mission, the availability of the different types of aircraft, and the number of funded flight hours available to accomplish the mission.

Commanders who request aviation support should understand that program hours might limit the number of flight hours available to support a given mission.

Air stations will always respond to emergencies, but depending on the number of flight hours remaining, they may be restricted in the number of flight hours available to support more routine missions. A similar process occurs within each area.

### **G.2. Coordinating Mission Requests Outside District or Area**

When a unit plans for the use of an asset located outside its district or area, the unit planner should use a two-step process. First, informal telephone inquiries are made to the command center of the operational commander and to the operations department of the air station owning the required assets. This serves to confirm that the asset requested is the most suitable one, and to allow all parties to discuss any considerations that may not be obvious, e.g., conflicts with other expected tasking.

The second step is for the requesting unit to send a formal request for tasking message via its district to the operational commander of the requested unit, with informational copies to the area commander and the air station. Normally, the operational commander will send the air station a tasking message for the mission and formally authorize direct liaison between the requester and the air station for subsequent planning.

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## Section G. Mission Planning, Continued

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### **G.3. Participation of Mission Experts**

Participation of mission experts during the planning and execution of a mission enhances mission effectiveness. By virtue of their aviation responsibilities to all program areas as well as a wide range of collateral duty responsibilities, aviators are generalists.

Any mission requiring a level of specialized expertise should include such an expert in the planning and execution of the mission.

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### **G.4. Short Notice Missions Request Procedures**

Unscheduled missions, missions that need immediate response, or missions occurring at other than normal working hours are requested through the appropriate district or area command center. Although they are Headquarters units, strike teams request aviation support through their area command center.

District units such as Marine Safety Offices (MSOs) request aviation support through their own district command center.

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### **G.5. Short Notice Missions Requests Outside District or Area**

Requests for aviation assets under the responsibility of another district commander are made via the requesting party's command center to the area command center and then to the district command center having responsibility for the particular aviation asset requested.

If time is critical, the command centers may authorize direct liaison with the air station.

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### **G.6. Requests Originating from Outside the Coast Guard**

Requests from non-Coast Guard parties for Coast Guard aviation support are best directed through the Coast Guard programs that may be involved. For example, requests in support of marine environmental activities should be made through the responsible MSO, MIO, or COTP for evaluation and submission through the appropriate chain of command.

Similar requests for U.S. Coast Guard participation in a foreign theater of operation must be made directly to the Commandant.

Requests involving transportation are handled as discussed in Section C of this chapter and Chapter 5 of this Manual.

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## Section G. Mission Planning, Continued

### G.7. Mission Prioritization

When the demands for Coast Guard aviation assets exceed the ability of the commander to fulfill each mission request, the missions are prioritized.

The highest priority is given to emergent threats. Threats to national security, serious personal injury or loss of life, and major property loss are prioritized in that order.

Less emergent threats or threats that are judged less catastrophic receive a lower mission priority.

Potentially large-scale pollution incidents need to be assessed as early as possible. Depending on the circumstances, a major spill can be a national security threat, a serious violation of federal law, a threat to life and property, or a regional economic catastrophe. Mission support of such a threat should receive very high priority.

On the other hand, routine missions, such as harbor patrols, may be deferred or canceled if another mission with a higher priority occurs.

### G.8. Factors Affecting the Mission

The following “principles” of Coast Guard Aviation affect the execution of a mission. They should therefore be considered during mission planning to ensure success.

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## Section G. Mission Planning, Continued

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### G.8.a. Aircraft Characteristics

Knowledge of specific aircraft characteristics are necessary in determining the proper employment of a specific aircraft type or combination of types.

In general, F/W aircraft are characterized by speed, endurance, and the ability to cover large distances.

R/W aircraft are characterized by the ability to hover, to land and takeoff without the use of runways. In general, R/W aircraft can get closer to specific objects than F/W aircraft, which must maintain a minimum safe forward speed.

Primary factors limiting the ability of an aircraft to perform a mission include fuel requirements, adverse weather, and crew utilization standards. The magnitude of the limitation imposed by each of these factors depends on the type of aircraft in question.

Generally, F/W crews can be used for longer periods than R/W crews can.

Some aircraft are more capable in certain meteorological conditions than other aircraft.

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### G.8.b. Flight Profile

The desired flight profile determines the rate that fuel is expended, and thus affects endurance and range.

Flying at maximum speed for rapid response consumes more fuel and reduces on-scene endurance. More fuel will extend endurance, but it may limit the load-carrying capability of the aircraft.

When possible, flying at higher altitudes reduces fuel flow and increases speed, thus increasing range.

For F/W aircraft, this difference can be dramatic.

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## Section G. Mission Planning, Continued

### G.8.c. Safety

The safety of the crew and the aircraft must always be the primary frame of reference in the planning and execution of an aviation mission. This is based on the fundamental management principle of preserving expensive resources so they can be used again.

The loss of a single airframe or crewmember has a direct effect on the Coast Guard's ability to carry out its mission. In most cases, the airframe will not be replaced. The loss of individual expertise and experience can only be overcome with time and additional monetary investment in training replacements. This is not to say risks will not be taken; rather, risks will be calculated and managed with regard to the potential benefit.

### G.8.d. Aircraft Utilization Standards

Aircrew utilization standards help reduce fatigue-induced accidents.

Safety experts agree that human error is one important, if not the most significant, factor in aviation mishaps. Although "to err is human," fatigue causes errors to be made more frequently. An alert aviator will catch and correct most errors, but a tired aviator, making more frequent errors, is less likely to catch and correct all errors and is more likely to have a mishap.

Aircrew utilization factors may be found in Chapter 3.

### G.8.e. Readiness

Coast Guard aircraft are ready to perform their assigned missions 24 hours per day. All Coast Guard air stations, except CGAS Washington, maintain at least one B-ZERO, or "ready," aircraft at all times.

Some air stations may have more than one type of aircraft in a ready posture, i.e., one R/W and one F/W aircraft. The ability of a station to maintain more than a single aircraft in a ready status is limited by the number of aircraft and people assigned and available.

A ready aircraft may be airborne at any given time performing operational or training missions.

B-ZERO aircraft are district or area assets. In the Pacific Area, all B-ZERO aircraft are under the direct control of the districts. In the Atlantic Area, all HC-130s are under the operational control (OPCON) of the area. All other aircraft in the Atlantic Area in a B-ZERO status are controlled by the districts.

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## Section G. Mission Planning, Continued

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### G.8.f. Aircraft Management

Funding constraints limit the numbers of Coast Guard aircraft, personnel, and program flight hours. Therefore, these resources must be carefully managed.

Efficient utilization of the Coast Guard's aviation assets requires careful planning even though many missions are unplanned responses to emergent situations. Area and district commanders and commanding officers of air stations should consider several planning factors when determining how to use the available program flight hours. These include, but are not limited to, the following:

- past and projected emergent response requirements
- projected aircrew training requirements
- projected non-emergent operational requirements

When planning non-emergent operations, every opportunity to make efficient use of flight hours should be considered. For example, if aircraft are to be deployed to a forward location, transportation of personnel or cargo should be coordinated with flights to and from the forward location whenever possible rather than scheduling separate logistics flights.

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### G.8.g. Airspace Restrictions

Airspace restrictions may limit the ability of an aircraft to operate in a given area. The airspace along the coastal United States is controlled at different times by a variety of agencies, primarily the FAA, the Navy and the Air Force. Examples include control zones around busy airports and military warning areas. Depending on the way the airspace is being used, Coast Guard aircraft may be restricted in their access to portions of certain airspace.

For pre-planned missions, airspace reservations should be made 24 hours prior to use, if possible.

For emergent missions, delays may occur before Coast Guard aircraft can safely enter restricted airspace being used for activities that may pose a hazard to flight. Examples include gunfire exercises, missile launches, air combat maneuvering, etc.

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## Section G. Mission Planning, Continued

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G.8.h. Fuel Reserves	<p>Aircraft must have adequate fuel reserves on board. Federal Aviation Regulations (FARs) require all aircraft to land with reserve fuel. The amount of fuel reserve varies with the length of time an aircraft is airborne and the weather conditions at the intended point of landing.</p> <p>The reserves can be as little as 20 minutes of fuel for R/W aircraft and 45 minutes for F/W aircraft under perfect weather conditions, or they can be several hours' worth of fuel if the aircraft must make contingent plans for diverting to an alternate airfield due to bad weather at the intended destination.</p>
G.8.i. Navigation and Communications	<p>Communication between air and surface elements should leave no doubt about the method of identifying courses and positions.</p> <p>Aircraft navigate with primary reference to magnetic headings and courses, and use latitude and longitude for fix positions, aeronautical navigation aids and geographic references.</p> <p>The charts, navigation aids, and equipment aviators use differ significantly from those used by mariners.</p>
<b>G.9. Mission Objectives</b>	<p>Clear and realistic mission objectives should be agreed upon prior to a flight. This enables the aircrew to plan the most effective means for accomplishing the mission, and it provides the customer with a reasonable measure of the effectiveness of the sortie.</p> <p>Changes to a mission while the aircraft is airborne often cannot be avoided, but it must be understood that they come at the cost of time and fuel used to revise the flight plan for the remainder of the sortie.</p>
<b>G.10. Post-Mission Reports</b>	<p>Post-mission reports exchanged between the aviation element and the supported element are fundamental parts of a satisfactory mission. The complexity of the report depends on the scope of the mission.</p> <p>A simple telephone call may be sufficient, or a formal written report may be necessary. Besides being the means of transmitting the results of the mission, the report should clarify any changes or problems encountered in meeting the mission objectives.</p> <p>Without an honest appraisal of the mission performance by both parties, neither party has a basis or incentive to improve the manner in which a mission is conducted in the future.</p>

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# CHAPTER 2: FLIGHT AUTHORIZATION AND CLEARANCE

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## Chapter 2

# Flight Authorization and Clearance

### Overview

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#### Introduction

This chapter provides information on the authorities and responsibilities involved in the operation of Coast Guard aircraft. This includes the authority to operate aircraft and to approve, direct, fly, and command flights, as well as an explanation of the authorized uses of Coast Guard aircraft.

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#### In this chapter

This chapter is divided into six sections:

- Authority for the Coast Guard to Operate Aircraft
  - Authorized Official Uses of Coast Guard Aircraft
  - Authority to Approve, Direct and Initiate Flights
  - Personnel Authorized to Pilot Coast Guard Aircraft
  - Personnel Authorized to Command Coast Guard Aircraft
  - Flight Clearance Authority for Coast Guard Aircraft
-



## **Section A. Authority for the Coast Guard to Operate Aircraft**

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### **A.1. Authority**

The basic authority for the Coast Guard to operate aircraft is contained in Title 14, United States Code. This authority is further delegated through 41 CFR, Part 101-37, and this Manual.

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#### **A.1.a. Policies and Reporting Requirements**

OMB Circular A-126, Improving the Management and Use of Government Aircraft, DOT Order 6050.1 (series) (excerpts from which are included in this Manual as Appendix C), Management and Use of Department of Transportation Aircraft, and this Manual prescribe policies and reporting requirements for the use of Coast Guard aircraft.

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### **A.2. Responsibility**

The primary responsibility and authority for the operation of Coast Guard aircraft is vested in the Commandant. Coast Guard aircraft shall be operated only for authorized official purposes and shall be used in the most cost-effective manner possible.

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## Section B. Authorized Official Uses of Coast Guard Aircraft

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### B.1. Mission Requirements Use

Coast Guard aircraft are used to support programs that must be accomplished to carry out official responsibilities as authorized or required by statute. Support to such programs constitutes **Mission Requirements Use** of aircraft. All flights as Mission Requirements Use by Coast Guard aircraft shall be justified, authorized and approved.

Mission Requirements are normally conducted as the primary purpose of flight (See Chapter 5, Section B, for policy on transportation of passengers in conjunction with Mission Requirements Use, and Chapter 5, Section J, for policy on transportation of cargo).

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#### B.1.a. Defined

Coast Guard Mission Requirements Uses are defined and described by the various Employment Categories in the Abstract of Operation Reports, COMDTINST 3123.7 (series).

---

### B.2. Required Use Transportation

Use of Coast Guard aircraft for **Required Use Transportation** as the primary purpose of flight is reserved for certain DOT/Coast Guard officials or employees for the following reasons:

- Bona fide communications or security needs of the traveler's organization; or
  - Exceptional scheduling requirements.
- 

#### B.2.a. Policy

All Required Use Transportation must be approved in advance and in writing. (See Appendix C (excerpts from DOT Order 6050.1 (series)) and Chapter 5, Section C, for Required Use Transportation policy.)

---

### B.3. Other Transportation for Official Business

In addition to Mission Requirements or Required Use purposes, Coast Guard aircraft may also be used for **Other Transportation for Official Business** for passengers and/or cargo. This is transportation on Coast Guard aircraft which may be approved only if such use is:

- Cost effective, or
  - If no commercial airline or aircraft service, including charter, is reasonably available to effectively fulfill the traveler's requirement (i.e., able to meet the traveler's departure and/or arrival requirements within a 24-hour period, unless the traveler demonstrates that extraordinary circumstances require a shorter period).
-



## Section B. Authorized Official Uses of Coast Guard Aircraft, Continued

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### B.3.a. Policy

However, where use of or transportation on Coast Guard aircraft for official business is deemed necessary by officials/employees of other federal agencies, reimbursement for the cost of aircraft operation may be required.

---

### B.3.b. Policy

Policy on transportation of passengers is specified in Appendix C (excerpts from DOT Order 6050.1 (series)) and Chapter 5.

---

### B.4. Reimbursable Use

The Coast Guard enters into **Reimbursable Use** agreements with other government agencies in which the cost of the service provided must be recovered. Also, there are situations in which use of Coast Guard aircraft by private entities requires reimbursement.

Additional guidance on Reimbursement for Transportation is provided in Appendix C, excerpts from DOT Order 6050.1 (series).

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### B.4.a. Reimbursement

Reimbursement for the cost of operations is described in the Financial Resource Management Manual (FRMM), COMDTINST M7100.3 (series).

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### B.4.b. Computing Reimbursable Charges

Standard personnel salaries and variable cost rates for the use of Coast Guard Aircraft change constantly. For the most up to date information the best source is the Commandant (G-CFM-2) website, located at: <http://cgweb.comdt.uscg.mil/g-cfp/g-cfs-2/cfs2.htm>

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### B.4.c. Policy Questions

Questions concerning reimbursement policy and standard rates should be referred to the Financial Policy Branch, Commandant (G-CFM-1).

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## **Section C. Authority to Approve, Direct and Initiate Flights**

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### **C.1. Area and District Commanders**

Area and district commanders are delegated the authority to approve and direct flights in support of assigned missions (Mission Requirements Use).

Commandant (G-O) is delegated the authority to approve and direct flights of Headquarters Units in support of assigned missions.

---

### **C.2. Commanding Officers of Units with Aircraft Assigned**

Commanding officers of units with aircraft assigned, either aviation units or vessels with aircraft embarked or deployed, are delegated the authority to initiate flights to meet assigned missions (Mission Requirements Use).

The flight schedule constitutes the Commanding Officer's authorization to initiate specific flights. Because of the significant responsibility inherent in this authority, flight schedule authority can be delegated no lower than the designated operations officer. In the absence of the designated operations officer, the flight schedule must be signed at a higher level in the air station chain of command.

As an exception, flights may be initiated by a lower official when prior approval is not practicable (e.g., Search and Rescue (SAR) missions). However, such flights shall be approved by a higher approval authority as soon as possible.

Commanding officers are delegated the authority to approve and direct training flights, including those which remain overnight, as long as readiness requirements are maintained at the unit.

Flights having a connotation of personal convenience or recreation are prohibited.

---

### **C.3. Transportation Flights**

Transportation authority guidance is provided in Chapter 5 for passengers and cargo. For situations not specifically covered in this Manual, guidance and approval should be obtained from the appropriate District or Area Commander, via the chain of command.

Requests for air transportation that cannot be resolved at these levels should be forwarded to Commandant (G-OCA) by the concerned District or Area Commander.

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## **Section C. Authority to Approve, Direct and Initiate Flights,** Continued

### **C.4. Flight Test Programs**

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Flight test programs to evaluate new equipment or aircraft configurations are prohibited without specific authorization from Commandant (G-OCA).

Maintenance test flights, which are authorized as discussed in Chapter 4, are not to be confused with the flight test programs prohibited by this paragraph.

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## **Section D. Personnel Authorized to Pilot Coast Guard Aircraft**

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### **D.1. Coast Guard Aviators**

Except where permitted in Chapter 4, Section O of this manual, only Coast Guard aviators qualified in type or in training to become qualified in type are authorized to manipulate the controls and pilot Coast Guard aircraft.

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### **D.2. Other Military Aviators**

In an emergency, an air unit commanding officer may assign a properly qualified aviator of another Service as a pilot in a Coast Guard aircraft without prior authorization. Any such assignment shall be reported by the commanding officer to Commandant (G-OCA) via the chain of command.

The command shall retain a description of the emergency conditions and an account of the circumstances leading to the assignment.

---



## Section E. Personnel Authorized to Command Coast Guard Aircraft

### E.1. Authorized Command Personnel

A Coast Guard aircraft shall be flown only under the command of the pilot authorized to make the flight. Normally, authorization is granted by the commanding officer of the unit to which the aircraft is assigned.

When a Coast Guard aircraft is temporarily located at another Coast Guard unit, the commanding officer of that unit may deviate from this requirement when the aircraft's use is deemed essential and fully qualified flight crewmembers are available.

The commanding officer of the unit to which the aircraft is permanently assigned shall be advised of the aircraft's status and the estimated duration of the requirement.

### E.2. Pilot in Command

The Pilot in Command (PIC) is defined as the pilot who has been assigned by proper authority to take charge of the aircraft and be responsible for a specific flight or mission.

Normally, the PIC is the senior pilot in the aircraft holding the highest designation in type. The PIC will signify acceptance of the aircraft by signing the Aircraft Flight Record (CG-4377), Part I - Preflight and Local Clearance. However, omission of this act will not in itself nullify the status of the PIC.

If a flight must depart when a PIC has not been assigned, the senior pilot holding the designation of aircraft commander (AC) or first pilot (FP), in that order, shall be the PIC. If an Instructor Pilot or Flight Examiner is required for the primary mission, then the required Instructor Pilot or Flight Examiner shall be the PIC.

Pilot Designations	Pilot in Command
Both Pilots ACs	Senior Pilot
One AC, One FP	AC Designated Pilot
Both Pilots FPs	Senior Pilot

*Continued on next page*



## Section E. Personnel Authorized to Command Coast Guard Aircraft, Continued

### E.3. Pilot in Command Authority and Responsibility

The PIC is responsible for the safe, orderly, efficient and effective performance of the aircraft and aircrew and passengers during the entire mission, whether it is a single sortie from home station or many sorties while deployed away from home station.

This responsibility exists from the time the PIC first enters the aircraft with intent for flight, until leaving it upon completion of the mission.

#### E.3.a. PIC Authority

To carry out this responsibility, the PIC has the authority to direct all aircraft and aircrew activities during the mission, including periods between sorties. The PIC has flight clearance authority as described in Section F of this chapter as well as the authority to modify planned missions to provide for the safety of the crew and the airframe.

It is imperative that all members of the flight crew be aware of the PIC's identity and authority.

The successful completion of the mission or the safety of the crew and aircraft may be jeopardized if any crewmember doesn't know who is in command or fails to recognize the PIC's authority and act accordingly.

#### E.3.b. Exceptions

The authority and responsibility of the PIC of a Coast Guard aircraft are independent of rank or seniority in relation to other persons taking part in that flight, except as detailed in the following paragraphs.

##### E.3.b.(1). Commanding Officer

The commanding officer of a Coast Guard aviation unit, or other aviator in tactical command, retains full authority and responsibility regarding his or her command. This includes the flight in which the aviator in tactical command is participating.

#### NOTE

Aviator in tactical command is defined as a designated military aviator, senior to the PIC, in the aircraft's operational chain of command.

##### E.3.b.(2). Acting Aviator in Tactical Command

When the commanding officer or other aviator in tactical command assumes direct command of the aircraft, that officer assumes responsibility for the safe and orderly conduct of the flight.

Any subsequent flight rule violations, mishap reports, or other actions arising from the flight will refer to that officer, the acting aviator in tactical command, as the PIC for the remainder of the flight.



## **Section E. Personnel Authorized to Command Coast Guard Aircraft, Continued**

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### **E.3.c. Transfer of Pilot in Command Authority/Responsibility**

The authority and responsibility of the PIC will not normally be transferred to another individual. A transfer of PIC authority and responsibility may be authorized only by the commanding officer of the unit to which the aircraft is attached, or by a higher authority.

Deviations from this policy are authorized only as required by emergency or military necessity. The fact that the PIC of an aircraft may give up the actual physical control of the aircraft to another pilot does not alter the basic assignment of authority and responsibility for the flight.

Likewise, for a series of flights constituting one operation (e.g., ferry, deployment, etc.), the initially assigned PIC shall retain the authority and responsibility for the aircraft until the operation has been concluded.

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### **E.4. Check Pilot**

The assigned check pilot on instrument, standardization, and SAR procedures checks will usually be designated as the PIC.

---

### **E.5. Crewmember Status**

The status and crew position assignment of each individual participating in a flight must be clearly understood by the entire aircrew before the flight. This information must also be specifically recorded on the crew list or passenger manifest for the flight.

The senior crewmember present in a separate compartment shall be clearly identified to the other crewmembers in that compartment.

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## **Section F. Flight Clearance Authority for Coast Guard Aircraft**

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### **F.1. Clearance**

Clearance, as used in this paragraph, is defined as military permission to execute a definite aircraft movement. It is not to be confused with Air Traffic Control clearance that is required for flight under instrument conditions within controlled airspace.

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### **F.2. Basic Clearance**

Clearance for flights of Coast Guard aircraft is based on the nature of the mission, condition of the aircraft and crew, and the actual/expected weather and other conditions at all points in the proposed flight.

---

#### **F.2.a. Authority**

Clearance authority for aircraft flights is granted to commanding officers of units with aircraft assigned and to the PIC for assigned missions.

Commanding officers may delegate authority for clearance to officers under their commands.

Clearance authority for Coast Guard aircraft operating from other military activities is normally retained by the Coast Guard through the PIC.

---

#### **F.2.b. Restrictions**

The commanding officer of a Coast Guard unit with aircraft assigned shall not permit a Coast Guard aircraft to depart when he or she believes the safety of the proposed flight is unduly jeopardized by the weather, condition of the aircraft or other known factors, or when such departure would constitute a violation of regulations.



## Section F. Flight Clearance Authority for Coast Guard Aircraft, Continued

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### F.2.c. Security Control of Air Traffic and Air Navigation Aids (SCATANA)

In the event of a national emergency, the North American Aerospace Defense Command (NORAD) has the authority to implement SCATANA. Under SCATANA, NORAD will determine what aircraft are authorized to fly by reference to the Wartime Air Traffic Priority List (WATPL). The most current version of the WATPL is listed in Title 32 of the U.S. Code, Part 245, Section 245.8. Whether or not USCG aircraft are permitted to fly under SCATANA depends on the level of SCATANA imposed by NORAD, and the mission priority as defined in the WATPL. Implementation of SCATANA can vary by region and is specific to the national emergency. In the event of SCATANA implementation, Commandant (G-OCA) will liaison with NORAD on behalf of the Coast Guard and disseminate the information to operational units as soon as available.

### F.2.d. Delay of Missions

The final decision to delay a mission may be made by either the commanding officer or PIC when, in the opinion of either individual, conditions are not safe to start or continue a mission.

Final responsibility for the safe conduct of the mission rests with the PIC. If the assigned PIC refuses a mission, it will not depart until that PIC is satisfied that conditions have improved or such necessary corrective actions have been taken that the mission can proceed safely. Another PIC and crew shall not be assigned to take the same mission under the same conditions without the specific approval of the commanding officer. **This authority may not be delegated.** Due consideration must be given to the urgency of the mission and the new crew's ability to proceed safely on the mission under the existing conditions before a change in PIC and crew may be approved.

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## Section F. Flight Clearance Authority for Coast Guard Aircraft, Continued

### F.3. Clearance for Malfunctioning or Damaged Aircraft

#### F.3.a. Inspection

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If a precautionary landing is made away from home station for observed or suspected aircraft malfunctions or damage, the PIC shall ensure that a proper inspection of the aircraft is conducted by competent maintenance personnel and the results reported to the home station's engineering officer or other qualified maintenance officer.

Further flight without the approval of the appropriate clearance authority, as given in Paragraphs F.3.b and F.3.c below, is prohibited.

---

#### F.3.b. Minor Malfunctions and Non-Structural or Cosmetic Damage

If the engineering officer or other qualified maintenance officer has evaluated the reported malfunction to be minor and not a threat to the safety of the crew or aircraft, the commanding officer may clear the aircraft for further flight.

If the aircraft has been damaged and the engineering officer or other qualified maintenance officer has evaluated the damage to be non-structural or cosmetic, the commanding officer may clear the aircraft for further flight.

Only in the most unusual circumstances should the aircraft be cleared for further flight without the specific approval of the commanding officer.

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#### F.3.c. Major Malfunctions and Actual or Suspected Structural Damage

If major malfunctions or structural damage is found or suspected and further flight is required, the commanding officer or his/her representative will brief Commandant (G-OCA) and (G-SEA) on the extent of the damage and recommended action.

Commandant (G-OCA), with technical concurrence from Commandant (G-SEA), will be the clearance authority for further flights of aircraft with actual or suspected structural damage.

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## **Section F. Flight Clearance Authority for Coast Guard Aircraft, Continued**

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### **F.4. Clearance for Aircraft Operating in the Washington, DC Area**

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#### **F.4.a. Ronald Reagan Washington National Airport**

Only the Long-Range Command and Control (C2) Aircraft (Coast Guard 01) operates from Ronald Reagan Washington National Airport without prior approval of Commandant (G-OCA).

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#### **F.4.b. Other Area Airports**

Commandant (G-OCA) should be notified in advance of other Coast Guard aircraft planning to operate within the Washington, DC area, including Andrews Air Force Base and Washington Dulles International Airport.

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## CHAPTER 3: FLIGHT AND MISSION PLANNING

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## Chapter 3

# Flight and Mission Planning

### Overview

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#### Introduction

This chapter provides guidance for conducting flight and mission planning for Coast Guard aircraft. It is intended to supplement other applicable Coast Guard directives, such as Federal Aviation Regulations (FAR) Parts 91 and 93, Joint FAA/Military documents, DOD publications, and Aircraft Flight Manuals. Requests for deviation from the provisions of this chapter shall be forwarded to Commandant (G-OCA) for approval.

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#### In this chapter

This chapter is divided into four sections:

- Mission Planning
  - Flight Planning Procedures
  - Flight Planning — Aircrew
  - Flight Planning — Weather
-



## Section A. Mission Planning

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### A.1. Overview

Many factors must be considered in planning an aviation mission. Weather, airspace clearances, recovery bases, flight plans, and aircraft performance data are just a few. Some can be modified to suit the missions, and some, like the weather, are factors over which one has no control. Because of the complex interrelationship among planning factors, it is best to involve aviators in the operational planning.

Mission planners should provide aviators with prioritized objectives, then let them determine how best to use the aviation assets to meet the objectives.

Aircraft characteristics are discussed in Appendix B.

---

### A.2. Fuel

Fuel is one of the most important considerations in aviation planning. Coast Guard aircraft are turbine powered and have some flexibility in the fuel that can be used. JP-4, 5, and 8, as well as Jet A, A1, and B, are all suitable fuels for turbine engines.

Because of critical weight considerations, aircraft do not carry maximum fuel for every flight. The standard fuel load for each Coast Guard aircraft varies from air station to air station, depending on mission requirements.

Fuel management must also be considered during mission planning. Flying at maximum speed for rapid response consumes more fuel and reduces on-scene endurance. More fuel will extend endurance, but may limit load-carrying capability.

A fuel load can be tailored for a specific flight, but changing a fuel load can delay a short notice launch between 15 and 60 minutes.

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## Section A. Mission Planning, Continued

### A.2.a. Fuel Availability

When planning operations where aircraft will be staged from a forward location or must refuel en route to the final destination, mission planners must ensure that suitable fuel in sufficient quantity will be available at the forward base of operations or airports along the route to meet mission requirements. To control cost, fuel should be purchased at DOD bases or at commercial facilities with a DOD fuel contract whenever possible.

It can generally be assumed that large military and commercial facilities will be able to meet the mission's fuel requirements with no special preparations beyond those of normal flight planning. Where airport facilities are adequate, but fuel is not available, refueling from an HC-130 may also be a suitable option.

However, planning for fuel availability can become especially critical when aircraft will be required to operate in remote locations and special advance arrangements may be required.

### A.2.b. Other Fueling Options

Some procedures, such as Helicopter In-Flight Refueling (HIFR), can extend the range and/or endurance of helicopters within the constraints discussed in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST 3710.2 (series).

Other procedures, such as "hot refueling," can minimize the time required to replenish an aircraft between sorties.

These techniques involve an element of risk and cannot be applied in every situation. Each pilot in command (PIC) retains final approval authority about the suitability of using these procedures.

### A.3. Aircrew

Mission planners need to consider when to alert aircrews of a possible launch and whether augmented or double crews will be required for mission accomplishment.

Frequent "false" alerts are distracting and time consuming, but advance notice of a mission can substantially aid the aircrew in making preparations and accomplishing the mission.

Mission planners need to carefully weigh these conflicting aspects of alerting.

*Continued on next page*



## Section A. Mission Planning, Continued

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### A.3.a. Alerting

When it becomes apparent that the launch of an aircraft may be required, consideration should be given to alerting the aircrew of that possibility and brief them about the probable nature of the mission. Time of day, unusual mission-related information, or the need to discuss mission requirements are factors in considering alerting an aircrew.

It is usually not necessary to wait until all the relevant information is received before the aircrew can start preparations for the mission.

Providing aviators early notification gives them time to accomplish some of the necessary flight planning in advance and to configure the aircraft for the mission.

Adding fuel to increase endurance or removing fuel to enable the aircraft to carry extra passengers or cargo are examples of things that might be done to prepare an aircraft for a specific mission.

---

### A.3.b. Crewing

Each aircraft type has a minimum crew requirement depending on the nature and difficulty of the mission and prevailing conditions.

However, if an aircraft is to be staged far from its home base, the number of pilots and crew may need to be increased to ensure both crew rest and mission requirements can be met.

For example, if an aircraft must first fly a long distance and then be pressed immediately into service, a double crew may be required – one to fly the aircraft to the forward location and one to fly the aircraft on the mission. Similarly, if an aircraft must operate for long periods each day on an extended deployment, a double crew may be required.

Sometimes crew rest and mission requirements can be met by augmenting an aircrew with an extra pilot or other crewmembers rather than by sending a complete second aircrew.

Minimum crew assignments, flight scheduling standards, and crew rest requirements are provided in Section C below, but the aviators responsible for flying the mission should be consulted regarding the best way to balance crew rest and mission requirements.

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## Section A. Mission Planning, Continued

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### A.4. Environment

Besides fuel, other factors – weather, temperature, air density, icing potential, turbulence, aircraft weight and configuration, runway conditions, etc. – affect the performance capabilities of an aircraft. They influence the weight of the payload an aircraft can carry, the distance it can fly (range), the length of time it can stay airborne (endurance), the speed at which it can fly, and, for helicopters, whether hovering and hoisting can be accomplished.

Under some circumstances, environmental conditions may eliminate the option of using an aircraft for a mission. The effects of these factors are complex and dynamic, and they vary for each type of aircraft.

During the planning stage, mission or operations planners who are not aviators should consult with the aviators who will be performing the mission.

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### A.5. Risk Management

Managing the actual operation of an aircraft involves several trade-offs.

---

#### A.5.a. Emergencies

Pilots are taught to anticipate emergencies. A good pilot always has a plan in mind for what he or she will do if a critical component fails.

For example, helicopter pilots minimize the time they must hover directly over a boat so they have a clear area to ditch if a serious engine malfunction should occur. Multi-engine airplane pilots plan every takeoff so it can be made safely, even if the most critical engine should fail at the least opportune moment.

---

#### A.5.b. Mission Modification

Because of the dynamic and complex nature of flight operations, pilots receive both the authority and responsibility to modify planned missions to provide for the safety of the crew and the airframe.

Coast Guard pilots are trained to constantly assess risk, mission goals, probability of success, and their own abilities when making critical aviation decisions. This process is aimed at achieving the highest level of customer satisfaction while minimizing the possibility of personnel injury or damage to expensive capital assets.

Special use airspace, e.g., warning areas, can impact the execution of missions, particularly those that are routine or lower priority. Advance coordination with agencies that control such airspace is vital to ensure effective mission accomplishment.

---



## Section B. Flight Planning Procedures

### B.1. Requirements for Flight Plans

The pilot in command (PIC) of a Coast Guard aircraft shall file a written flight plan prior to each flight, except when departing on an urgent search and rescue (SAR) or law enforcement (LE) mission.

#### B.1.a. Approved Forms

Flight Plan forms approved for Coast Guard use are:

- Military Flight Plan (DD Form 175);
- DOT-FAA Flight Plan (FAA Form 7233-1);
- DoD International Flight Plan (DD Form 1801); and
- ICAO Flight Plan (Form 7233-4).

#### B.1.b. Local Flights

Local Flight Clearance (Part 1, CG-4377) may be used for visual flight rules (VFR) flights scheduled to return to the flight's point of origin.

#### B.1.c. En route Stops

Flights making en route stops need not file a new Flight Plan or Local Flight Clearance form if all of the following criteria are met:

- Intermediate stops are entered, in order of intended landing, on the flight plan filed at the original point of departure;
- Personnel to be picked up or discharged are either noted on the original flight plan or on a current passenger manifest that is left at each intermediate stop; and
- The pilot in command remains unchanged.

#### B.1.d. Group Movements

One flight plan may be filed for a group of aircraft proceeding as a unit under visual meteorological conditions (VMC). Group flights under instrument meteorological conditions (IMC) by Coast Guard aircraft are not authorized.

#### B.1.e. Standard Practice

Flights of Coast Guard aircraft shall be conducted in accordance with instrument flight rules (IFR), whenever practicable.

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## Section B. Flight Planning, Continued

### B.2. Preparing and Filing Flight Plans

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- |                    |  |
|--------------------|--|
| B.2.a. DD Form 175 | Instructions for completing DD Form 175 are contained in DoD flight information publications. The authority clearing the flight shall sign in the space provided on DD Form 175. |
|--------------------|--|
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- |                        |   |
|------------------------|---|
| B.2.b. FAA Form 7233-1 | When using FAA Form 7233-1, the signature of the pilot shall be included with the pilot identification information. Unless documented elsewhere, a list of the aircraft occupants shall be written on the reverse side of the form or attached to the form. |
|------------------------|---|
- 
- |  |   |
|--|---|
| B.2.c. Unavailability of Military Flight Clearance | On flights originating from airfields without a military flight clearance capability, flight plans shall be filed as prescribed in the Aeronautical Information Manual (AIM) or other applicable publication. |
|--|---|
- 
- |               |   |
|---------------|---|
| B.2.d. Copies | A copy of each filed flight plan shall be left with base operations, the airport manager, or other responsible person at the point of departure. Copies filed at Coast Guard air units shall be retained for 90 days. |
|---------------|---|
- 

### B.3. Weather Briefing Requirements

Weather is an extremely important safety factor in the planning and conduct of flight operations.

Paragraphs B.3.a through B.3.d below describe the weather information a PIC must obtain before each flight along with certain record keeping requirements.

Section D of this chapter contains information about minimum weather requirements for takeoffs, landings and other aspects of aircraft operations.

#### B.3.a. General

An aviation weather briefing shall be obtained before all flights. If a weather briefing cannot be obtained prior to departure and the weather conditions are at or above the minimums required for departure, the flight may proceed.

However, the PIC shall contact an appropriate facility for weather information as soon as practicable after takeoff.

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## Section B. Flight Planning, Continued

### B.3.b. Weather Clearance

Weather information entered on aircraft clearance forms shall be supplied by qualified meteorological personnel when such personnel are available.

Commanding officers may authorize, in writing, Marine Science Technicians who are graduates of an approved weather briefing school, and who are considered qualified, to prepare and sign flight weather briefing forms.

### NOTE

It must be understood that Marine Science Technicians are most likely not qualified forecasters and should only be expected to brief the flight crews using information and forecasts obtained from other sources.

### B.3.c. IFR Flights

Prior to an IFR flight, a comprehensive weather briefing shall be obtained.

Except when using an FAA Form 7233-1 Flight Plan, the weather briefing shall be recorded on a DD Form 175-1.

When using the FAA Form 7233-1, the weather briefing may be recorded on the reverse side of the form or on a separate page attached to the form.

- When using a DD Form 175-1, it shall be completed and signed by a qualified weather briefer when available. If a weather briefing is received other than in person, the PIC shall complete all sections of the DD Form 175-1 and include the initials of the person conducting the briefing.
- When a weather briefer is not used, appropriate weather information shall be recorded. Acceptable sources of data for weather information include observers, teletypes, or other displays.

### B.3.d. VFR Flights

On VFR flights, a weather briefing must be obtained, though it need not be recorded.

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## Section B. Flight Planning, Continued

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### B.4. Fuel Reserve Requirements

Federal Aviation Regulations (FARs) require all aircraft to depart with sufficient fuel to reach the destination or alternate with a fuel reserve still on board. The size of the fuel reserve varies with the length of time an aircraft is airborne and the weather conditions at the intended point of landing. The reserves can be as little as 20 minutes of fuel for helicopters and 45 minutes for fixed-wing (F/W) aircraft under perfect weather conditions. Or, there can be several hours' worth of fuel if the aircraft must make contingent plans for diverting to an alternate airfield due to bad weather at the intended destination. Fuel carried on departure will be at least ten (10) percent more than that required to reach the alternate airfield via the destination.

However, in no case will this reserve fuel be less than that required for 45 minutes of flight after reaching the alternate (for F/W aircraft) or 20 minutes of flight after reaching the alternate (for rotary-wing (R/W) aircraft).

Meteorological factors, mission requirements, and any known or expected traffic delays shall be considered when computing fuel reserves. Additional fuel reserve requirements, in lieu of a destination alternate for remote locations, are discussed in Paragraph D.3 of this chapter.

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### B.5. Foreign Clearance Procedures

Procedures for obtaining required clearances and conducting flight operations within foreign airspace are contained in the United States Air Force (USAF) Foreign Clearance Guide. It is imperative that these procedures be followed before any Coast Guard aircraft enters foreign airspace.

The PIC must confirm that Foreign Clearances have been obtained, even when another entity is responsible for this function.

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### B.6. Passenger Manifest Requirements

Before any flight, the PIC shall file a copy of an accurate crew and passenger list with a responsible person, showing name, grade, and Service (if military), duty station, and status aboard the aircraft (passenger or crew). On an urgent SAR or LE mission, this may be accomplished by radio.

Where it is not possible to leave the crew and passenger list with someone on the ground, such as in a rescue of survivors from an isolated location, an appropriate ground radio station shall be advised of the personnel on board as soon as possible.

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## Section B. Flight Planning, Continued

### B.6.a. Recording Manifests

Manifests may be written on the reverse side of the flight plan or on a passenger manifest form.

### B.6.b. Retention

Passenger manifests shall be retained by the home unit with the aircraft flight record.

## B.7. Weight and Balance Control

### B.7.a. PIC Certification

With the signing of a flight plan, the PIC certifies that a weight and balance form has been completed that represents the actual loading of the aircraft. A copy of the completed weight and balance form shall be submitted with the completed flight plan except when a unit has completed a standard loading weight and balance form within the last six months, and the aircraft is loaded in accordance with that standard loading.

If the aircraft is away from its home station, a copy of the weight and balance form shall be left with the responsible individual on the ground.

A semi-annual inventory shall be conducted of all station aircraft for which a standard loading weight and balance form has been completed to ensure that the completed form represents the actual loading of these aircraft.

### B.7.b. Retention

Original weight and balance forms shall be retained for 90 days by the aircraft's home unit.

## B.8. Closing Out Flight Plans

The PIC is responsible for ensuring that the flight plan is properly closed out.

### B.8.a. Military Installations

For flights terminating at military installations, the PIC should verbally confirm flight plan closing with Tower or Base Operations personnel.

### B.8.b. Non-Military Installations

For flights terminating at non-military installations, the PIC should close the flight plan with the appropriate air traffic control agency by any available means of communication.

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## Section B. Flight Planning, Continued

### B.8.c. Remote Airfields

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When communication facilities do not exist at the destination, the PIC may, within five minutes before landing, transmit the predicted landing time to a communications facility for relay to the appropriate air traffic control agency to close out the flight plan.

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## Section C. Flight Planning — Aircrew

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### **C.1. Minimum Pilot Assignment Requirements**

The minimum pilot assignment requirements for operation of Coast Guard aircraft are described in the following paragraphs. All pilots must be qualified in type except as noted. An Aircraft Commander (AC) shall be assigned as the PIC of aircraft on difficult or unusual missions, and on flights scheduled to carry passengers.

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#### **C.1.a. All Aircraft Except SRR Helicopters and Single Pilot Fixed-Wing Aircraft**

##### **C.1.a.(1) Normal Flights**

Either of the following is required to meet minimum pilot assignment requirements:

- An AC and a copilot (CP); or
  - Two First Pilots (FPs).
- 

##### **C.1.a.(2) Training Flights**

The minimum pilot assignment requirements for training flights are the same as those for normal flights with the following exceptions:

- For flights during an approved pilot qualification syllabus under VMC, the student need not hold a CP designation.
  - For training flights other than pilot instruction, under daylight VMC, an FP and a CP may be assigned together. However, the FP shall neither relinquish the pilot's seat to the CP, except in an emergency, nor relinquish control of the aircraft when at an absolute altitude below 500 feet.
  - Special authorization for Aviation Training Center instructors to conduct training flights under IMC with student pilots not yet qualified as CPs is provided in Paragraph C.1.c below.
- 

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## Section C. Flight Planning — Aircrew, Continued

### C.1.a.(3) Maintenance Flights

An AC and an FP are required. A commanding officer may authorize a CP in lieu of the FP for deployed aircraft.

When practicable, an aeronautical engineering officer should be assigned to test flights of unit aircraft; however, it is not necessary for the aeronautical engineering officer to be the PIC.

For further guidance and restrictions on aircrew assignments for maintenance flights, see Chapter 4, Section M.

### C.1.a.(4) Ferry Flights

For ferry flight, the minimum required pilot assignment consists of an AC and a CP.

### C.1.b. SRR Helicopters and Single-Pilot Fixed- Wing Aircraft

#### C.1.b.(1) Normal Flights

One of the following is required to meet minimum pilot assignment requirements:

- Under daylight VMC, an AC or an FP is the minimum required.
- Under night VMC, the minimum requirement is an AC and a CP or two FPs, except when mission urgency dictates, an AC alone may be authorized by the commanding officer. **This authority may not be delegated.**
- Under IMC, an AC and a CP, or two FPs, are required.

#### C.1.b.(2) Training Flights

For training flights, the minimum pilot assignment requirements are given below.

- Under daylight VMC — A CP, but only when engaged in an upgrade syllabus flight as part of that syllabus.
- Under night VMC — One of the following minimum pilot assignments is required:
  - An AC and a student pilot engaged in syllabus instruction.
  - An AC when the commanding officer determines that adequate light is available to provide visual reference.
  - Special authorization for Aviation Training Center instructors to conduct training flights under IMC with student pilots not yet qualified as CPs is provided in Paragraph C.1.c below.



## Section C. Flight Planning — Aircrew, Continued

C.1.b.(3) Maintenance Flights	<p>For all SRR Helicopters, an AC is required. When practicable, an aeronautical engineering officer should be assigned to test flights of unit aircraft; however, it is not necessary for the aeronautical engineering officer to be the PIC.</p> <p>For further guidance and restrictions on aircrew assignments for maintenance flights, see Chapter 4, Section M.</p>
C.1.b.(4) Ferry Flights	<p>For ferry flights, at least an AC and a CP are required.</p>
C.1.c. Special Authorization for Aviation Training Center	<p>Flight under instrument conditions may be conducted by Training Division (TRADIV) instructors and students engaged in a pilot training syllabus provided that each airport where flight operations are to be conducted has a ceiling of 500 feet or better and visibility of at least one mile, or meets approach minimums, whichever is higher.</p>
C.1.d. Single Pilot Fixed-Wing Aircraft	<p>Single pilot FW aircraft may be flown by a student pilot who has been designated “safe for solo” by the unit commanding officer.</p>
<b>C.2. Minimum Aircrew Assignment Requirements</b>	<p>Table 3-1 prescribes the minimum aircrew required in addition to the minimum pilot requirements described above for Coast Guard aircraft/missions.</p> <p>Commanding officers or PICs may require additional personnel or someone with a higher designation based on unit or mission needs.</p> <p>For aircraft types and missions not indicated, minimum crew requirements will be prescribed by the Commandant (G-OCA).</p> <p>The minimum crew described in the flight manual is defined as the minimum number of persons required to operate the aircraft safely.</p>

*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

Table 3-1

Minimum Aircrew Assignment Requirements												
(In Addition to Minimum Pilot Requirements)												
		AV	BA	DM	FE	FM	RS	LM	N	R	SSO	TO
HC-130	SAR/PATROL		•	•	•				•	•		
	LOG/PAX				•			• <sup>(2)</sup>		•		
	MAINT/TRNG/FERRY		•		•							
HH-60	SAR					• <sup>(1)</sup>	• <sup>(4)</sup>					
	PATROL					• <sup>(1)</sup>	• <sup>(4)</sup>					
	LOG/PAX/TRNG/MAINT/FERRY		•									
HH-65	SAR/PATROL					• <sup>(1)</sup>	• <sup>(4)</sup>					
	LOG/PAX/TRNG/MAINT/FERRY		•									
HU-25	SAR	•	•	•								
	PATROL		•									
	MEDEVAC	•	•									
	AIREYE		•	•							•	
	INTERCEPTOR										•+1 <sup>(3)</sup>	
	LOG/PAX/TRNG/MAINT/FERRY		•									
<div>(1) A hoist qualified basic aircrew member (HQBA) may be substituted for the FM on day only missions that do not involve rescue swimmer (RS) operations.</div> <div>(2) For C-130 Pax Missions, 1 LM plus 1 BA</div> <div>(3) Flight Crewmember mandatory. Commands shall not reduce this crew requirement.</div> <div>(4) Requirement for rescue swimmer (RS) may be waived at the Commanding Officer’s discretion.</div>												

*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

### C.3. Crew Utilization

#### C.3.a. Maximum Utilization Factors For Aircrews

Uniform aircrew utilization standards are necessary to help reduce fatigue as a factor contributing to aircraft mishaps.

**The standards are not intended to unduly restrict operational commanders when urgent operations are required; exceptions may be made by cognizant commanders as authorized in this section. The standards cannot cover every situation that will arise; the command must determine the best course to follow in accomplishing certain urgent missions.**

However, conformance with the spirit of these standards is necessary if chronic and acute fatigue is to be reduced.

Commanding officers may establish more stringent comprehensive requirements after taking into account the variety of conditions that affect their units such as, but not limited to, mission, Bravo-Zero requirements, predominant weather, terrain, geographic location, individual pilot experience, use of sensors, and mission time of day.

The spirit of these standards is to ensure that flight crews are well rested, alert, and capable of performing their duties safely. Although ground duties not related to a specific sortie are not counted as crew mission time, they must be considered in crew scheduling.

#### C.3.a.(1) Flight Scheduling Standards

Within any 24 consecutive hours, a flight crewmember should not be scheduled to exceed the hourly limits shown in Table 3-2. Flights which are scheduled for the maximum time allowed should not be extended except for urgent mission requirements.

#### NOTE

A new 24-hour period will begin any time a crewmember has completed ten hours of rest, regardless of duty status. However, deadhead time shall not be calculated as part of rest time.

*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

Table 3-2

FLIGHT SCHEDULING STANDARDS		
Mission	Individual Flight Time	Crew Mission Hours (CMH)
R/W Single-Pilot	6	12
R/W Multi-Pilot	8	12
F/W Unpressurized	8	12
F/W Pressurized (Except HU-25)	12	16
HU-25	10	14

### C.3.a. Rest Requirements

After a flight in which accumulated times total those in Table 3-3, a crewmember shall be required to take no less than the indicated number of off-duty hours before being assigned as an aircrew member.

These rest requirements shall be applied whenever an aircraft is safely on the ground or flight deck, regardless of engine or rotor operation or intent for further flight. (See Paragraph C.3.a.(4) of this chapter for exceptions.)

Table 3-3

REST REQUIREMENTS				
Fixed-Wing		Rotary-Wing/Single-Pilot Fixed-Wing		Hours Off Duty
Individual Flight Time	Crew Mission Time	Individual Flight Time	Crew Mission Hours (CMH)	
8.0-9.9	12.0-12.9	6.0-6.9	10.0-10.9	10 (12)*
10.0-11.9	13.0-14.9	7.0-7.9	11.0-11.9	12 (18)*
12.0+	15.0+	8.0+	12.0+	15 (24)*
<b>Notes:</b> 1 Off-Duty Time must be such that it allows a minimum of 8 hours of bed rest. 2 Alternate Off-Duty Standards (*) are to be used if the individual flight time (IFT) or crew mission time (CMT) values in Table 3-3 are achieved for two or more consecutive days. 3 For single-pilot FW ferry and RW ferry operations, use FW standards.				

### NOTE

Individual flight time (IFT) and crew mission time (CMT), listed in Table 3-3 above, are cumulative unless 10 hours of rest are completed between sorties, regardless of duty status. If adequate crew rest facilities are not available between multiple sorties, crew mission time shall continue to accrue.

### NOTE

One-half of the number of flight hours spent deadheading shall count as crew mission time. Deadheading shall not be calculated as part of crew rest time.

*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

### NOTE

An aircraft may continue flight operations so long as no member of the minimum crew required for the mission exceeds the IFT or CMT limits and each has met the minimum rest requirements listed in Table 3-3 above. Each member of the crew must also comply with the additional requirements and standards given below.

### C.3.a.(3) Additional Requirements and Standards

#### C.3.a.(3)(a) Flight Hours

A flight crewmember shall be relieved from all duty for not less than 24 consecutive hours at least once during any eight consecutive days (192 hours).

For example, a crew which commences duty status at 1600 on Wednesday must be relieved from all duty for at least 24 consecutive hours commencing no later than 1600 on the following Wednesday.

However, a crewmember who is deployed may remain in a duty status indefinitely, provided he or she has not exceeded an average of four flight hours per day for the previous seven days (including days prior to deployment) and has not exceeded IFT or CMT in Table 3-3 above. If, when deployed, the flight hours or crew mission time in Table 3-3 above on any given day are exceeded, the respective “HOURS OFF DUTY” standards apply.

When deployed, if the average flight hours per day exceeds four, then the crew members shall be relieved from all duty for not less than 24 hours, as above.

#### C.3.a.(3)(b) Reverse Cycle Operations

Unless a flight crewmember has night adapted, the member may not be scheduled for more than two consecutive nights of reverse cycle operations. The Flight Scheduling Standards and Rest Requirements of Tables 3-2 and 3-3 apply to reverse cycle operations.

#### C.3.a.(3)(c) Seven Consecutive Days

A flight crewmember shall not fly as a crewmember more than 50 hours in any seven consecutive days.

*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

C.3.a.(3)(d) Thirty Consecutive Days	A flight crewmember shall not fly as a crewmember more than 125 hours during any 30 consecutive days.
C.3.a.(3)(e) 365 Consecutive Days	A flight crewmember shall not fly as a crewmember more than 1100 total military/civilian hours during any 365 consecutive days.
C.3.a.(3)(f) Alert Duty	Flight crewmembers shall not be assigned alert duty for more than 24 consecutive hours; they should have at least 10 hours off duty immediately before assuming alert duty. Alert duty is limited to 12 hours unless adequate crew rest facilities are available.
C.3.a.(3)(g) Strip Alert	Flight crewmembers shall not be assigned strip alert for more than 12 consecutive hours (with adequate crew rest facilities) or eight consecutive hours (without adequate crew rest facilities); they should have at least 10 hours off duty immediately before assuming strip alert duty.
C.3.a.(4) Exceptions	
C.3.a.(4)(a) SAR Missions	<p>For SAR missions in which saving life is probable, the standards, limits and requirements of the paragraphs of C.3.a of this chapter may be waived by commanding officers on a calculated risk basis. <b>This authority may not be delegated.</b></p> <p>It should be understood that flight safety would be affected with an attendant rise in mishap potential. Cognizant operational commanders shall be advised of the situation and action taken.</p>

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## Section C. Flight Planning — Aircrew, Continued

### C.3.a.(4)(b) Other Missions

For other missions, only commanding officers of aviation units are authorized to waive the requirements of the paragraphs of C.3.a of this chapter to move an aircraft or a deadheading flight crew to or from a staging area. **This authority may not be delegated.** The physical condition of the flight crew and the operational situation may indicate this as the best course of action.

Where an exceptional operational requirement exists, the commanding officer may initiate the waiver on a calculated risk basis. Otherwise, a request for a waiver shall originate only from the pilot in command.

### C.3.a.(4)(c) Required Excess

When the tempo of operations requires individual flight time in excess of the guidelines in Paragraph C.3.a.(3) of this chapter, flight personnel shall be closely monitored and specifically cleared by the commanding officer on the advice of a flight surgeon.

### C.3.b. Responsibility of Flight Crewmembers

The preceding standards impose limits upon operational commanders in order to improve mental and physical readiness of flight personnel. Individual benefits derived depend upon the proper use of off-duty time to ensure good mental and physical condition.

It is the moral and military responsibility of each flight crewmember to engage only in those off-duty activities that will allow the crewmember to report to duty fully rested. It is impossible for the commanding officer or cognizant department head to be aware of how crewmembers use off-duty time.

All flight crewmembers shall be made aware of these provisions.

It is the responsibility of the individual flight crewmember to advise the operations officer whenever he or she is approaching, or has reached, the prescribed limits.

### C.3.c. Command Responsibility

It is emphasized that the prescribed limits are necessary in the interest of safer Coast Guard air operations. More conservative limits may and should be imposed at all command levels when deemed advisable. As these limits are approached, time available for ground duties necessarily will be reduced. Such consequences must be anticipated and accepted during periods of heavy flight activity.

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## Section C. Flight Planning — Aircrew, Continued

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### C.4. Alcohol Consumption

Aviation personnel are restricted from aerial flight for 12 hours after last alcohol use and must have no residual effects. This includes the use of “low” and “no” alcohol beer. Residual effects include lightheadedness, headache, fatigue, nausea, and lack of alertness.

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### C.5. Medication

Personnel engaged in flight operations shall not take any medication/supplement unless prescribed and/or approved by a flight surgeon.

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### C.6. Flight Restrictions Following Blood and Bone Marrow Donations

The following restrictions on donating blood shall be observed because of the potential adverse effects of temporary blood deficiencies on aircrew performance in flight:

- Aircrew personnel shall obtain permission from the commanding officer before donating blood.
- Aircrew personnel shall be grounded for a period of 3 days (72 hours) after a donation of 200 cc or more of blood.
- Aircrew personnel shall be grounded for a period of 7 days after donation of 500 cc or more of blood (note: the standard unit of donated blood is less than 500 cc).
- Aircrew personnel shall not donate blood more than every 120 days.
- Aircrew personnel should not be permitted to engage in flights above 35,000 feet, night flying, or other demanding flights for a period of one week after blood donation.

The following restrictions apply for aircrew personnel selected for and undergoing bone marrow donation:

- Aircrew personnel selected for and undergoing bone marrow donation are grounded for a minimum of 30 days.

Return to full flight status after bone marrow donation must include examination and clearance by a flight surgeon.

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*Continued on next page*



## Section C. Flight Planning — Aircrew, Continued

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### **C.7. Hypobaric Exposure**

The following restrictions to flight following low pressure chamber flights or accidental hypobaric exposure apply:

- Flight personnel shall not perform flight duties for 12 hours after exposure to low-pressure chamber flight in excess of 30,000 feet. They may fly during the 12 hours as passengers in aircraft where cabin altitude does not exceed 10,000 feet.
  - Individuals who have experienced a reaction to decompression (i.e., vasomotor collapse, unconsciousness, bends, etc.) shall be immediately referred to a flight surgeon.
- 

### **C.8. Hyperbaric Exposure**

Under normal circumstances, flight personnel shall not fly or participate in low-pressure chamber flights within 24 hours following SCUBA diving, compressed air dives, or high-pressure chamber evolutions.

Where an urgent operational requirement dictates, flight personnel may fly within 12 hours of SCUBA diving, provided no symptoms of aeroembolism develop following surfacing and the subject is examined and cleared for flight duties by a flight surgeon.

Egress Breathing Device training does not limit personnel from flight or Low Pressure Chamber training. The duration and depth of training is not normally sufficient to produce symptoms of aeroembolism.

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## Section D. Flight Planning — Weather

### D.1. General

#### D.1.a. Flight Clearance

Clearance for flights shall be based on the actual weather at the point of departure, the forecast weather en route, and the forecast at both the destination and alternate for the period beginning one hour before until one hour after the estimated time of arrival (ETA) at each point.

Existing weather may be used as a basis for clearance when no forecast weather is available and if the pilot's analysis of available data indicates satisfactory conditions for the planned flight.

#### D.1.b. IMC and IFR Flight Plans

An IFR flight plan shall be filed for all flights that may expect to encounter IMC in controlled airspace on any portion of the planned route.

#### D.1.c. Shipboard Operations

Weather criteria for conducting shipboard operations (including takeoff, landing, Vertical Replenishment (VERTREP), and HIFR) are published in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

### D.2. Departure Requirements

#### D.2.a. Standard Takeoff Minimums

Standard takeoff minimums apply in the absence of published non-standard minimums for the departure airport. These minimums are:

- Meteorological visibility of one half statute mile for non-operational missions; and
- Meteorological visibility of one-quarter statute mile for operational missions.

#### D.2.b. Non-Standard Takeoff Minimums

Published non-standard takeoff minimums apply to all aircraft.

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## Section D. Flight Planning — Weather, Continued

### D.2.c. IFR Departures

For IFR departure criteria, see Table 3-4.

### D.3. Destination Requirements

#### D.3.a. Destination Forecast Unavailable or Below Minimums

No clearance shall be authorized for destinations at which there is no Terminal Area Forecast available, or the forecast weather will be below compatible minimums (ceiling and visibility) upon arrival unless an alternate airport is available at which forecast weather conditions are equal to or better than the following:

For fixed wing aircraft

- Ceiling is at least 2000 feet above the lowest compatible approach minimum; and
- Visibility is three miles, or two miles above the lowest compatible approach visibility minimum, whichever is greater.

For rotary wing aircraft

- Ceiling is at least 1000 feet above the airport elevation or at least 400 feet above the lowest compatible approach minimum, whichever is higher; and
- Visibility will be at least two statute miles.

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## Section D. Flight Planning — Weather, Continued

**Table 3-4**

IFR DEPARTURE CRITERIA	
Departure Airport Weather	Procedure Required
Below takeoff minimums	Takeoff not authorized. <sup>1</sup>
Above takeoff minimums but <i>below</i> approach minimums (or no instrument approach available).	<p>Takeoff authorized <sup>2, 3, 4</sup></p> <p>Comply with published IFR departure procedures if specified. Otherwise, normal takeoff procedures ensure obstacle/terrain clearance.</p> <p>Select and indicate on the flight plan a departure alternate which meets the following criteria:<sup>5</sup></p> <ul style="list-style-type: none"> <li>Two-engine aircraft and multi-engine helicopters — not more than one hour from the departure airport at single-engine cruising speed computed for no-wind conditions.</li> <li>Four-engine aircraft — not more than two hours from the departure airport at three-engine cruising speed computed for no-wind conditions.</li> </ul>
Above takeoff and approach minimums	Takeoff authorized. Comply with published IFR departure procedures if specified. Otherwise, normal takeoff procedures ensure obstacle/terrain clearance.
<p><sup>1</sup> When the extreme urgency of the mission dictates, the commanding officer of the parent unit may authorize a takeoff below these minimums. When such urgent missions arise while an aircraft is on detached duty or at a remote location, the pilot in command, if he or she holds the Aircraft Commander (AC) designation, may also authorize a takeoff below these minimums. Consideration must be given to obstacle/terrain clearance, departure alternate, emergency landing capability, equipment limitations, and pilot ability.</p> <p><sup>2</sup> At airports not served by a published instrument approach, VMC must be maintained until reaching MEA/MOCA/MVA.</p> <p><sup>3</sup> The aircraft must be capable of maintaining MEA with one engine inoperative while en route to the departure alternate.</p> <p><sup>4</sup> IFR departures which require a departure alternate are not authorized for training flights or flights with a First Pilot (FP) in command.</p> <p><sup>5</sup> Departure alternates must meet the weather criteria specified in Paragraph D.3.d of this chapter.</p>	

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## Section D. Flight Planning — Weather, Continued

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### D.3.b. Destination Alternate Not Required

An alternate destination is required on all instrument flight plans except when the forecast weather at the first point of intended landing (for each point of intended landing on a stop-over flight plan) meets the following conditions for the period one hour before to one hour after the ETA:

For fixed wing aircraft

- Ceiling is at least 2000 feet above the lowest compatible approach minimum; and
- Visibility is three miles, or two miles above lowest compatible approach visibility minimum, whichever is greater.

For rotary wing aircraft

- Ceiling is at least 1000 feet above the airport elevation or at least 400 feet above the lowest compatible approach minimum; and
  - Visibility at least two statute miles.
-



## Section D. Flight Planning — Weather, Continued

### D.3.c. Destination Alternate Not Available

If the destination is an island or other remote location where an alternate is unavailable, the commanding officer of the unit to which the aircraft is attached will determine the amount of holding time that must be planned in lieu of an alternate; in no case shall this be less than one hour.

### D.3.d. Alternate Airport Minimums (Departure and Arrival)

The weather at the departure alternate must be at or above the specified weather at departure time and forecast to remain so for one hour after ETA at the departure alternate. Weather at the arrival alternate must be forecast to be at or above the specified weather from one hour before to one hour after ETA at the arrival alternate.

The following conditions apply:

For fixed wing aircraft

- Ceiling at least 800 feet and visibility 2 statute miles for airports served by a compatible non-precision approach, and ceiling at least 600 feet and visibility 2 statute miles for airports served by a compatible precision approach; but weather at the alternate shall not be lower than the lowest compatible circling minimums as specified in current flight information publications.

For rotary wing aircraft

- Ceiling at least 200 feet above the minimum for the approach to be flown, and visibility at least one statute mile but not less than the minimum visibility for the approach to be flown.

### D.3.e. Severe Weather — Icing Conditions

#### D.3.e.(1) Fixed-Wing (FW) Aircraft

FW aircraft, equipped with fully operable anti-icing and de-icing equipment, may be flown through areas of known or forecast moderate icing.

Except where mission urgency dictates otherwise, flights shall be planned to avoid areas of known or forecast heavy icing conditions.

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## Section D. Flight Planning — Weather, Continued

### D.3.e.(2) Rotary- Wing (RW) Aircraft

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HH-60 aircraft with fully operable anti-icing and de-icing equipment may be flown through known or forecast light icing, or moderate icing if mission urgency dictates. HH-60 aircraft with fully operable anti-icing equipment, but inoperable de-icing equipment, may be flown through known light icing if mission urgency requires.

HH-65 aircraft shall avoid flight through known icing conditions.

---

### D.3.f. Severe Weather — Turbulence/Thunder- storms (Reported or Verified)

FW flights shall avoid areas of severe turbulence and extreme turbulence.

RW flights shall avoid areas of moderate or greater intensity turbulence.

All flights shall avoid thunderstorms.

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## CHAPTER 4: CONDUCT OF AIRCRAFT OPERATIONS

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# Chapter 4

## Conduct of Aircraft Operations

### Overview

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#### Introduction

This chapter provides guidance for operating Coast Guard aircraft. It is intended to supplement other applicable directives (such as Federal Aviation Regulations (FAR) Part 91 and Flight Information Publications (FLIP)). Requests for deviation from the provisions of this chapter shall be forwarded to Commandant (G-OCA) for approval.

---

#### In this chapter

This chapter is divided into nineteen sections:

- General
  - Ground Operations
  - Passengers
  - Flight Rules
  - Instrument Flight Requirements
  - Avoidance and Reporting of Actual and Near Midair Collision
  - In-Flight Emergencies
  - Flight Maneuvers
  - Flight Violations
  - Offshore Flight Operations
  - Night Vision Goggles (NVGs)
  - Transportation Flights
  - Maintenance Flights
  - Ferry Flights
  - Orientation Flights
  - Participation of Aircraft in Flight and Static Displays
  - Other Regulations and Considerations
  - Firearms
-



## Section A. General

---

### **A.1. Control of Aircraft**

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#### **A.1.a. Operating the Controls**

The pilot in command (PIC) of an aircraft determines who shall operate the controls during all phases of flight. The PIC must use sound judgment in assigning pilots of limited experience to handle the primary flight controls when marginal flight conditions exist or when potentially hazardous operations are undertaken.

It is not intended that PICs should handle the primary flight controls in all but the most routine of flight situations. If this were so, prospective pilots in command would not have adequate opportunity to gain actual control experience while under supervision of more experienced pilots.

---

#### **A.1.b. Changes in Physical Control**

Changes in the physical control of aircraft shall be done in a positive manner. Normally, simple voice procedures shall be used.

The pilot exercising control is responsible until the relieving pilot verbally acknowledges acceptance of control. When verbal transfer is not possible for reasons such as high noise levels or an inoperative Intercommunications System (ICS), the following procedures shall be used:

- The pilot desiring to be relieved shall pat his or her head with one hand and then point to the other pilot.
  - The pilot taking control shall pat his or her head in acknowledgment and immediately and deliberately move both hands to the flight controls.
  - The pilot being relieved shall hold both hands overhead signifying that he or she has given up control.
- 

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## Section A. General, Continued

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### A.2. Checklists

Checklists shall be used in all aircraft except those specifically exempted by Commandant (G-OCA). The use of checklists is mandatory.

In the absence of a Coast Guard-promulgated checklist, the most recent checklist provided in the appropriate flight manual shall be used.

Local modifications to checklists, including partial completions without specific intent for flight operations, are not authorized without approval of Commandant (G-OCA).

“Rapid response” checklists must be published and approved for use at individual units by Commandant (G-OCA).

---

### A.3. Aircraft Manuals and Directives

All air crewmembers shall be familiar with the publications that pertain to all aircraft for which they hold current designations.

These publications include, but are not limited to, aircraft flight manuals, safety of flight supplements, and Commandant instructions.

A current Flight/Performance manual and all pertinent checklists shall be carried on the aircraft and be available to the crew.

---

### A.4. Meteorological and Navigation Information

Commanding officers shall ensure that adequate meteorological and flight planning facilities are provided for the use of their assigned aircrews.

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*Continued on next page*



## Section A. General, Continued

### A.5. Minimum Equipment for Flight

It is desirable that all Coast Guard aircraft be fully equipped and have all components functioning properly on every mission. However, it is recognized that, for certain missions and under specific circumstances, safe operation is possible with less than all equipment operational.

Commanding officers may publish minimum equipment lists for aircraft assigned to their units to serve as guidance for flight crews and to provide additional planning parameters for operational commanders.

The final responsibility regarding equipment required for a mission rests with the PIC. When the PIC considers an item essential for the accomplishment of the mission, he or she may designate the component or system as *mission essential*, and it will be repaired or replaced before departure.

Acceptance of an aircraft by a PIC to operate on one mission or one mission segment without an item or system does not commit that PIC or another PIC to subsequent operations with the same item or system inoperative.

### A.6. Unusual Performance of Aircraft

Commanding officers shall report to Commandant (G-SEA), (G-OCA), and (G-WKS) any abnormal, erratic, or unusual performance of assigned aircraft or their power plants. Recommendations for possible corrective action should accompany the report.

In urgent cases, this report shall be made by message, action to Commandant (G-SEA) and information to the appropriate district commander.

Material failures shall be reported in accordance with the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).





## Section B. Ground Operations

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### **B.1. Starting of Aircraft Engines/ Engagement of Rotors**

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#### **B.1.a. Authorized Personnel**

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##### **B.1.a.(1) Aircraft Engines**

An aircraft engine shall not be started unless a pilot, either designated in type or in training for designation in type, or a crewmember certified in writing by the commanding officer as being qualified to perform engine starts, occupies a pilot's seat.

---

##### **B.1.a.(2) Helicopter Rotors**

A qualified helicopter pilot shall occupy a pilot's seat whenever the rotor is engaged/turning.

---

#### **B.1.b. Precaution**

Before starting an engine the following precautions shall be observed:

- The aircraft parking brake shall be set (unless specified otherwise in aircraft flight manual).
  - A fire watch/observer shall be posted outside the aircraft to monitor each engine as it is started. If the aircraft is so equipped, the fire watch/observer shall have two-way ICS communications with the person starting the engine, unless impractical or unsafe.
  - The person starting the engine shall exchange signals with the fire watch/observer to ensure that the propeller/rotor and exhaust areas are clear.
- 

#### **NOTE**

If a fixed-wing (F/W) aircraft departs the ramp before starting all engines, further engine starts may be accomplished without external firewatch/observers, if the starts are monitored from inside the aircraft.

---

#### **B.1.c. High-Power Run-ups**

Before conducting a high-power run up, the aircraft shall be positioned so that neither the propeller/rotor nor the exhaust blast will cause damage to other aircraft or equipment.

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## Section B. Ground Operations, Continued

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### **B.2. Taxiing Aircraft**

Only pilots designated in type, or in training for designation in type, or crewmembers designated in writing by the commanding officer as being qualified to perform taxiing operations, shall taxi an F/W aircraft.

Only pilots designated in type, or in training for designation in type, shall taxi a rotary-wing (R/W) aircraft.

A minimum of two safety observers shall be provided when an aircraft is being taxied in confined areas to ensure no part of the aircraft strikes another object. Further guidance may be found in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).

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### **B.3. Controlling Vehicles Near Aircraft**

When operating vehicles near aircraft, adequate guide personnel shall be used to help vehicle operators maintain safe clearance. This requirement must be stressed at non-aviation units.

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### **B.4. Hot Refueling**

Hot refueling is the act of fueling an aircraft while one or more engines are operating. Gravity feed hot refueling is prohibited.

Aircraft equipped with a single-point (pressure) refueling capability may be hot refueled with the PIC's approval.

---

### **NOTE**

Repetitive hot refueling should be carefully considered. By lengthening the interval between through/post flight inspections, the risk of experiencing an undetected aircraft component problem increases.

For the HH-65, this interval should not routinely exceed six (6) hours.

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## Section B. Ground Operations, Continued

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### **B.5. Loading/ Unloading of Cargo**

It is the responsibility of the PIC to ensure that cargo is loaded and unloaded safely. Whenever the cargo may affect the weight and balance of the aircraft and whenever hazardous cargo is involved, loading and unloading operations shall be supervised by a qualified loadmaster, when available, and shall be conducted in accordance with Preparing Hazardous Material for Military Air Shipment, AFJMAN 24-204.

It should be noted that the supervisory role of the loadmaster in no way diminishes the overall responsibility of the PIC.

Normally, the aircraft's engines should not be running and propellers/rotors should not be turning while cargo loading/unloading operations are in progress. However, if required by operational exigency and deemed by the PIC to be safe under the existing conditions, cargo may be loaded/unloaded with engines running and/or propellers/rotors turning.

Care shall be taken to ensure that an adequate safety zone is maintained around any turning propellers/rotors and exhaust blast areas during any "engines running" evolution.

Care shall also be taken to prevent any foreign object debris (FOD) from becoming dislodged and damaging the aircraft or cargo, or injuring personnel during the loading process.

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## Section B. Ground Operations, Continued

### **B.6. Embarkation/ Debarkation of Personnel**

It is the responsibility of the PIC to ensure that all personnel enter and leave the aircraft safely. Normally, the aircraft's engines should not be running and propellers/rotors should not be turning while personnel are entering or leaving the aircraft.

However, if required by operational exigency and deemed by the PIC to be safe under the existing conditions, personnel may enter or depart the aircraft with engines running and/or propellers/rotors turning.

Care shall be taken to ensure an adequate safety zone is maintained around any turning propellers/rotors and exhaust blast areas during any "engines running" evolution.

Care shall also be taken to prevent any foreign object debris (FOD) from damaging the aircraft or cargo, or injuring personnel.

In particular, personnel approaching or departing an aircraft while its engines are running shall not wear headgear other than approved safety helmets or wear or carry other items which may easily become separated from their persons by a gust of wind or propeller/rotor/exhaust blast.

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## Section B. Ground Operations, Continued

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### **B.7. Security of Aircraft**

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#### **B.7.a. Aboard Military Units**

Whenever it is reasonable and prudent, based on mission requirements, location of the operating area (OPAREA), etc., Coast Guard aircraft should be left on military installations between flights so that military security is provided for the aircraft.

---

#### **B.7.b. Away from Military Units**

When an aircraft must be left on a field, airport, beach, body of water, or other area where a military installation cannot provide for its security, the PIC shall take adequate measures to ensure the safety of the aircraft and its equipment.

All classified material shall be safeguarded in accordance with the Classified Information Management Program, COMDTINST M5510.23 (series) and local instructions.

---

#### **B.7.c. Aircraft Involved in a Mishap**

When an aircraft is involved in a mishap, the PIC is responsible for the security of the aircraft until relieved by proper authority.

If the PIC is incapacitated, the senior crewmember not incapacitated shall assume this responsibility.

---



## Section C. Passengers

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### **C.1. Passenger Briefing**

The PIC shall ensure that all passengers embarked on Coast Guard aircraft receive an adequate briefing. This briefing shall cover at least the following:

- Use of personal flotation equipment (if flight will proceed over water);
  - Applicable alerting signals in event of emergency;
  - Action required in case of ditching or crash landing;
  - Location and operation of emergency exits and other equipment;
  - Seat belt rules and signals;
  - Restrictions regarding electronic devices (IAW FAR 91.21), firearms, etc.;
  - Oxygen (location and operation); and
  - Smoking prohibition.
- 

### **C.2. Safety Restraint of Passengers**

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#### **C.2.a. Passenger Restraint**

Each passenger provided transportation on Coast Guard aircraft shall occupy a suitable seat and shall at least wear a properly fastened seat belt when the aircraft is in motion, unless otherwise authorized by the PIC.

---

#### **C.2.b. Child/Infant Restraint**

Each child/infant under the age of two years should be restrained in a child/infant safety seat secured to a suitable aircraft seat with at least a properly fastened aircraft seat belt. The child/infant safety seat shall be provided by the adult sponsor.

It will be located in the aircraft so as not to impede movement and progress of other passengers.

Children/infants in this category shall remain restrained in the child/infant safety seat when the aircraft is in motion, unless otherwise authorized by the PIC.

The following guidance on child/infant safety seat standards applies for use in Coast Guard aircraft.

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## Section C. Passengers, Continued

### C.2.b.(1). Seats Manufactured on or after 26 February 1985 Test

Seats manufactured on or after 26 February 1985 are acceptable and must bear two labels:

- 1) “This child restraint system conforms to all applicable Federal motor vehicle safety standards,” and
- 2) “This restraint is certified for use in motor vehicles and aircraft.”

### C.2.b.(2) Seats Manufactured between 1 January 1981 and 25 February 1985

Seats manufactured between 1 January 1981 and 25 February 1985 are acceptable and must bear the label: “This child restraint system conforms to all applicable Federal motor vehicle safety standards.”

### C.2.b.(3) Unacceptable Seats

The following child/infant seats are not acceptable for use in aircraft:

- Vest and harness-type child restraints manufactured between 1 January 1981 and February 1985; and
- Unlabeled seats and seats manufactured before 1 January 1981.

### C.2.c. Pilot Responsibilities for Passenger Restraint

The PIC may not deviate from these rules to obtain additional or maximum seats. The PIC may authorize passengers on transport missions to unfasten their seat belts and move about in the aircraft during flight in smooth air.

However, the PIC must be alert at all times to anticipate turbulent flight conditions while passengers have seat belts unfastened.

### C.3. Uniform Requirements for Passengers

Passengers on Coast Guard aircraft are authorized to wear civilian clothing. Uniforms should be worn by Uniformed Services passengers when required by operational necessity or the DoD Foreign Clearance Guide.

When civilian clothing is worn, it shall be in good taste, at the discretion of the commanding officer or the PIC. Coast Guard personnel must ensure that their dress and personal appearance are appropriate for the occasion and will not discredit the Coast Guard. Conservative styles and fashions are authorized.

Tank tops or T-shirts worn as outer garments, shorts, sandals and revealing, soiled or torn clothing are examples of inappropriate civilian clothing.

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## Section C. Passengers, Continued

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### **C.4. Passenger Identification**

Positive identification is required of all passengers.

---

### **C.5. Passenger Travel Orders and Authorizations**

Official travelers will have in their possession a travel or transportation authorization published by an appropriate approving authority.

Travelers other than DOT employees or members of the U.S. Uniformed Services are also required to possess documentation that their travel aboard Coast Guard aircraft has been approved in accordance with this manual.

---

### **C.6. Hoisting**

Hoisting of helicopter passengers is described in Paragraph H.12 of this chapter.

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## Section D. Flight Rules

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### Overview

Federal Aviation Regulations (FARs), International Civil Aviation Organization (ICAO) Conventions (except as provided in FLIP General Planning (GP)), International Regulations for Preventing Collisions at Sea, and the U.S. Air Force Foreign Clearance Guide are binding on Coast Guard personnel in the operation of Coast Guard aircraft. However, military necessity (including SAR operations) may require non-compliance.

**This is not blanket authority to avoid compliance with FAR Part 91.119 (c).** (See Appendix E: FAA Exemption No. 5231B, exempting the Coast Guard from the provisions of FAR Sections 91.117(b), 91.119(c), and 91.159(a)).

---

### D.1. Fuel Reserve Requirements

Fuel reserve requirements are outlined in Chapter 3, Paragraph B.4. Additional fuel reserve requirements in lieu of a destination alternate for remote locations are discussed in Paragraph D.3 of Chapter 3.

---

### D.2. Air Defense Identification Zones (ADIZ)

All procedures for operating within or transiting ADIZs shall be obeyed.

---

### D.3. Special Transponder (IFF) Modes and Codes

Coast Guard aircraft are authorized to squawk mode 3 code 1277 on search and rescue missions when operating under the following conditions:

- On Visual Flight Rules (VFR) flight plans or VFR segment of a composite Instrument Flight Rules (IFR)/VFR flight plan; and
- En route to, from, or within the designated search area.

Special IFF codes for law enforcement and other missions are promulgated separately.

---

### D.4. Position Reports

The Telecommunications Manual (TCM), COMDTINST M2000.3 (series), prescribes requirements for position reporting by Coast Guard aircraft.

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## Section D. Flight Rules, Continued

### **D.5. Operations Over the High Seas**

All Coast Guard aircraft are to comply with the provisions of FLIP General Planning, Chapter 7. However, the following supplements section 7-8, "Operations Not Conducted Under ICAO Procedures," when operating within international airspace. Operations under "Due Regard" or the "Operational" prerogative of military aircraft shall be regarded as deviation from normally accepted operating procedures and practices. It should only be undertaken when mission requirements dictate and safety requirements can be met. When "Due Regard" operations are conducted, full responsibility for separation between Coast Guard aircraft and all other aircraft, both public and civil, falls on the Coast Guard. Airspace de-confliction is the responsibility of the operational and tactical commanders. These commanders must ensure procedures are in place to minimize the risk, including de-confliction procedures and a tactical communications plan. Commanders must be especially vigilant in identifying situations where more than one aircraft are directed to operate in the same area or to proceed to the same point.

Aircraft are normally operated with exterior lights energized. However, if mission requirements dictates, and the aircraft commander determines that safety requirements can be met, exterior lights may be secured when operating "Due Regard." The risks must be carefully weighed against the gains when invoking military necessity as a rationale for non-compliance with regulations. When lights out operations are desired, the operational commander shall specifically authorize it in the appropriate tasking order. Aircraft may be authorized, but not directed to operate with lights out. The aircraft commander is ultimately for the safe conduct of his/her flight. The minimum requirements and procedures that must be fulfilled when operating military "Due Regard" in international airspace are outlined in sections D.5.A through D.5.E of this chapter.

### **D.5.a. Aircraft Operating "Due Regard" in VMC**

The guidance in section D.5 of this chapter applies.

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## Section D. Flight Rules, Continued

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### **D.5.b. “Lights Out” Operations**

Early planning is recommended so airspace can be de-conflicted and other agency aircraft can be advised. However, if not already coordinated, all Coast Guard aircraft shall advise their respective operational and tactical commander prior to conducting “lights out” operations. The time, altitude, duration, and location of operations should be provided. Throughout “lights out” operations, Coast Guard aircraft shall maintain radio communications with their operational or tactical commander.

---

### **D.5.c. Aircraft Operating Within RADAR Surveillance and Radio Communications of a Surface RADAR Facility**

The surface facility must be certified to provide aircraft separation by the appropriate controlling agency.

---

### **D.5.d. Operations with Aircraft Equipped with RADAR Providing Separation**

No Coast Guard aircraft are equipped with RADAR that is sufficient to provide separation between that aircraft, aircraft they may be controlling, and other aircraft. However, other aircraft that are properly equipped and certified by the appropriate controlling agency can provide aircraft separation.

---

### **D.5.e. IMC Operations**

Aircraft operations in IMC in uncontrolled airspace shall be minimized. Aircraft commanders must exercise sound judgment before entering IMC in uncontrolled airspace keeping in mind the goal is to descend or ascend to acquire VMC. Exterior lights should be energized. They may be secured at the aircraft commander’s discretion when meteorological conditions affect the ability of the crew to safely fly the aircraft. Minimum descent altitudes in IMC, if prescribed by the applicable aircraft flight manual, are mandatory. If mission requirements allow, aircraft commanders shall broadcast their intentions on applicable common or guard frequencies before initiating operations in IMC in uncontrolled airspace. Except when mission requirements dictate, prolonged IMC operations in uncontrolled airspace are not allowed.

---



## Section E. Instrument Flight Requirements

---

### E.1. Approved Publications

Flights under Instrument Flight Rules (IFR) in Coast Guard aircraft shall be conducted in accordance with the rules, regulations, or recommended procedures specified by the publications in the following rank ordered list. Where conflicting regulations or varying procedures exist, the higher ranking publication shall be followed:

- Coast Guard Directives;
  - Federal Aviation Regulations (Parts 91 and 93) and FAA Manuals;
  - Joint FAA/Military Documents;
  - DoD Publications; and
  - All manuals presenting approved standard instrument approach procedures (such as those published by JEPPESEN and the U. S. Government).
- 

### E.2. Instrument Approaches

---

#### E.2.a. Approach and Landing Minimums

Instrument Approach Procedures (IAP) approved by either the FAA or DoD are authorized. An approach may be started and flown to minimums when the reported weather is below minimums; however, the pilot will not descend below the published minimum descent altitude/decision height (MDA/DH), or land, unless he or she can:

- Comply with FAR 91.175; or
- Proceed with a contact approach.

For instrument approaches, the term “military aircraft” in FAR 91.175(c) does not exempt Coast Guard aircraft from adhering to the provisions of that paragraph.

---

#### E.2.b. Helicopter Circling Approach Minimums

Helicopters may circle to land at the straight-in MDA or DH as long as they can accomplish the maneuver within 500 feet of the runway centerline and remain within the airport boundaries. However, determination of departure or arrival requirements discussed in Chapter 3, Section D, should not be predicated upon this capability.

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## Section E. Instrument Flight Requirements, Continued

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### **E.2.c. Aircraft Approach Categories**

Coast Guard aircraft are assigned to specific approach categories as prescribed in FAR Part 97.3 (see also Aeronautical Information Manual (AIM) glossary).

If it is necessary to maneuver at speeds in excess of the upper limit of a speed range for a category, the minimums for the next higher category should be used.

---

### **E.2.d. Shipboard Instrument Approach Procedures**

Shipboard instrument approach procedures are published in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) and Helicopter Operating Procedures for Air-Capable Ships, NWP-3-04.1 (series).

---

### **E.3. Global Positioning System**

For IFR flight, aircraft navigation shall not be predicated solely upon the Global Positioning System (GPS) until the FAA/DoD certifies the 3A receiver for IFR navigation. GPS may be used as a means to confirm other navigation sources.

Aircraft shall operate the GPS 3A receiver with KEYMAT loaded in accordance with published Flight Manual procedure.

---



## Section F. Avoidance and Reporting of Actual and Near Midair Collisions

---

### F.1. Midair Collision Avoidance

---

#### F.1.a. Inoperative IFF Transponder or TCAS

Coast Guard aircraft should not commence a flight with an inoperative IFF transponder unless mission urgency dictates. TCAS is not mission essential equipment. Properly functioning TCAS must be used unless mission requirements require securing it.

---

#### F.1.b. Occupation of Pilot Seats

The PIC of a Coast Guard aircraft that requires two pilots will ensure that both pilot seats are always occupied. If either pilot must leave his or her seat, he or she will be relieved by another pilot or aircrew who will perform the lookout duties of the absent pilot. However, at least one seat will always be occupied by a pilot qualified in type. Further guidance concerning seat occupation during orientation flights can be found in Section O.4.a of this chapter.

---

#### F.1.c. Simulated Instrument Flight

Simulated instrument flight in any Coast Guard aircraft is prohibited unless a safety pilot qualified in type is in the cockpit. ATC Mobile Instructor Pilots may fly simulated instrument approaches with a copilot under instruction acting as safety pilot.

In addition, a lookout having direct communications with the safety pilot shall be so stationed that he or she can scan the sector normally observed by the pilot simulating instrument conditions.

---

#### F.1.d. Simulated Instrument Conditions

Any device (i.e., instrument hoods) used to simulate instrument conditions for a pilot shall meet the following criteria:

- It shall not obscure the safety pilot's vision;
  - It shall be capable of instant removal or positioning by the pilot using the device so that he or she has full, unobstructed vision; and
  - The device shall not be attached to the aircraft.
- 

*Continued on next page*



## **Section F. Avoidance and Reporting of Actual and Near Midair Collisions, Continued**

### **F.2. Reporting Actual or Near Midair Collisions**

---

A midair collision is an incident where two or more aircraft actually collide while in flight. A near midair collision is an incident where a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft (excluding normal formation or air intercept flight), or a report is received from a pilot or a flight crew member stating that a collision hazard existed between two or more aircraft.

A serious near midair collision is an incident where a possibility of a collision occurs, and evasive action and/or bodily injury occurs as a result.

Actual and near midair collisions shall be reported in accordance with Chapter 9, Paragraph I.2.

---



## Section G. In-Flight Emergencies

### Overview

Whether or not a given situation constitutes an emergency is not always obvious. Weather, equipment malfunctions, etc., can cause a whole range of conditions from mere annoyances to bona fide emergencies.

If, after considering the particular circumstances of the flight, the pilot *feels* a potentially dangerous or unsafe situation exists, an emergency should be declared.

### G.1. Declaring an Emergency

To declare an emergency when operating with an IFR clearance, the pilot should contact the Air Traffic Center (ATC) on the currently assigned frequency.

If the flight is not communicating or receiving services, the pilot normally should call the air traffic facility or other agency in whose area of responsibility (AOR) the aircraft is operating.

If the station does not respond, the emergency message may be addressed to any station, tower, radio, or radar. The international emergency frequency 121.5 MHz may be used as necessary.

### G.2. Emergency Actions

In an emergency, pilots are allowed to deviate from any rule in FAR Part 91, Subparts A and B, as well as any Coast Guard directive on flight operations, to the extent necessary to meet the emergency.

However, the PIC may be required to submit a written report of the circumstances surrounding the incident via the chain of command to Commandant (G-OCA) and (G-WKS) and possibly to the chief of the ATC facility involved as well.

### G.3. OPCON Notification

As soon as practicable following the declaration of an emergency, the PIC should notify, or request the agency with whom he or she is communicating to notify, the command exercising operational control (OPCON) over the aircraft for that mission. However, during this critical time, communications with the aircraft should be limited to providing whatever assistance or advice is requested by the PIC.

**The responsibility for the safety of the aircraft and crew and the successful resolution of the emergency lies solely with the PIC.**





## Section H. Flight Maneuvers

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### **H.1. Maximum Performance Maneuvers**

The number of persons aboard a Coast Guard aircraft engaged in critical flight operations where actual maximum performance maneuvers are required for test and evaluation shall be limited to those required to properly operate the aircraft and accomplish the mission.

In the case of helicopter autorotation practice, participation by all Coast Guard flight crewmembers is permitted consistent with crew make-up for other operational training maneuvers.

---

### **H.2. Aerial Deliveries**

Aerial deliveries shall be conducted in accordance with the procedures, limitations, and techniques developed by the respective aircraft standardization units and equipment limitations specified in the Aviation Life Support Systems Manual, COMDTINST M13520.1 (series).

---

#### **H.2.a. Normal Delivery**

Aerial deliveries from F/W aircraft are restricted to the normal delivery listed in Chapter 7 of this manual or the aircraft flight manual.

Additionally, any item that will fit inside an A-13/20 can, AN/SSQ-57A sonar buoy container, an ADC can, or the dewatering pump container, and satisfies the weight requirements specified in the Aviation Life Support Systems Manual, COMDTINST M13520.1 (series) for a single parachute, may be dropped.

---

#### **H.2.b. Special Mission Equipment**

For those units so tasked by Commandant (G-OCA), any special mission equipment certified in accordance with this paragraph may be dropped.

---

#### **H.2.c. Other Items**

Approval from Commandant (G-OCA) must be obtained before airdrop of any item not provided for in this paragraph.

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#### **H.2.d. Hoist/Hover Deliveries**

Hoist/hover deliveries by helicopters are not considered aerial deliveries for the purpose of this paragraph.

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*Continued on next page*



## Section H. Flight Maneuvers, Continued

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### **H.3. Parachute Jumps and Air Deployment of the Combat Rubber Raiding Craft (CRRC)**

Commanding officers may authorize training or operational parachute jumps from Coast Guard C-130 aircraft by DoD contingents having parachute insertion as primary mission capability.

A qualified jumpmaster, current in accordance with parent service directives, shall supervise the jump evolution aboard each aircraft.

Each individual jumper must likewise be currently qualified.

Commanding officers may authorize training or operational deployments of the CRRC from Coast Guard C-130 aircraft.

Review of the appropriate loading manuals by DOD personnel and a Coast Guard qualified Loadmaster/Dropmaster is required before flight to ensure the CRRC is rigged correctly.

DOD personnel must be qualified in accordance with their own service directives to air deploy the CRRC from C-130 aircraft. One DOD team member must remain with the aircraft to provide assistance during Post Drop Checklist execution.

Before flight, all participating Coast Guard aircrew and DOD personnel shall be briefed on standard terminology, crew duties and responsibilities, and emergency procedures. Before flight, a Coast Guard qualified Dropmaster will be designated to supervise DOD personnel during the deployment.

---

### **H.4. Formations of Aircraft**

#### **H.4.a. Right-of-Way**

When a single Coast Guard aircraft is converging with an aircraft formation at approximately the same altitude (except head-on, or nearly so), the formation flight has the right-of-way.

In other cases, the formation shall be considered as a single aircraft and the right-of-way rules of FAR 91.113 apply.

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## Section H. Flight Maneuvers, Continued

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### H.4.b. Joining Formations

Unless specifically ordered to do so by competent authority, a single aircraft shall not join a formation in the air, and one formation shall not so join another. The order for joining a formation in the air shall be given before takeoff of the aircraft concerned, or by radio, and the leader of the formation to be joined shall be informed of the order.

---

### H.4.c. Joining Safely

When the pilot of a single aircraft or the leader of another formation is about to join a formation, the single aircraft shall approach the formation to be joined from a safe altitude and from the side.

It shall not enter the formation until its presence has been acknowledged by the leader of the formation to be joined.

---

### H.4.d. Formation Flights

Formation flights of dissimilar aircraft shall be thoroughly coordinated and briefed by all participating flight crews before conducting the flight.

Particular attention shall be given to differences in wake turbulence, minimum and maximum airspeeds, maneuvering power requirements, clearing, and flight safety.

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### H.4.e. Formation Flight in Instrument Meteorological Conditions

Formation flight in Instrument Meteorological Conditions (IMC) is prohibited.

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### H.5. Flight in Vicinity of Civil Aircraft

Commercial carriers and other civil aircraft shall be scrupulously avoided unless close approach is required by SAR, law enforcement operations, or conforms with air traffic control (ATC) or control tower clearances.

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*Continued on next page*



## Section H. Flight Maneuvers, Continued

### H.6. Zooming of Vessels

No vessels shall be “zoomed” except in an emergency or during a SAR operation when the attention or assistance of the vessel is desired.

Identification passes for law enforcement and SAR are authorized. The FAA has specifically authorized the Coast Guard to deviate from FAR 91.119(c) on law enforcement missions, specifically to operate no closer than 200 feet from a suspect vessel and no closer than 500 feet from other persons, vehicles, vessels, or structures. The text of the FAA exemption is shown in Appendix E. When radio communications cannot be established with the vessel, the aircraft first should establish identification, then indicate to the vessel the location of the distress, using the procedure described in FLIP or AIM.

Other methods of getting the attention of a vessel, such as using the loud hailer or dropping message blocks, may be employed.

### H.7. Airborne Use of Force

The aggressive use of a Coast Guard R/W or F/W aircraft to stop a fleeing suspect vessel is prohibited. This includes the use of rotor wash. No object (except a message block) may be dropped or fired from an aircraft to stop a fleeing vessel except those authorized in the Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series).

The MLEM contains the policy on use of force and standing rules of engagement for CG aircraft.

### H.8. Feathering Propellers/Securing Engines

Except in an emergency, or as provided in Section M of this chapter, no propeller shall be feathered or engine stopped: (1) when below 6000 feet absolute altitude or when in IMC in the C-130, or (2) at any time in any other Coast Guard aircraft.

### EXCEPTION

These restrictions do not apply to C-130 aircraft if two or three engine operation is dictated by mission requirement.

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## Section H. Flight Maneuvers, Continued

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### **H.9. Reduced Engine Operations**

No C-130 missions shall be planned anticipating two or three engine operations. As a mission develops, if the PIC determines an urgent operational necessity (e.g., emergent SAR or LE, extending endurance to ensure on-scene relief, etc.), reduced engine operations are permitted. Budgetary considerations are not valid reasons for conducting reduced engine operations.

Reduced engine operations in all other Coast Guard aircraft is an emergency situation and is not authorized for planning and/or operational missions.

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### **H.10. Helicopter External Load Transport**

Helicopter external load operations (when using the helicopter cargo hook) shall be conducted in accordance with the procedures and limitations developed by the respective aircraft standardization unit.

The Multiservice Helicopter Sling Load: Basic Operations and Equipment, COMDTINST M13482.2 (series) prescribes basic principles and procedures, as well as single and dual point rigging procedures.

Additional Vertical Replenishment (VERTREP) procedures are contained in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

In cases where the procedures published in particular manuals differ, the order of precedence shall be:

- Aircraft Flight Manual,
- Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series), and
- Multiservice Helicopter Sling Load: Basic Operations and Equipment, COMDTINST M13482.2 (series)

Use of any external lift device not listed in Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2, Multiservice Helicopter Sling Load: Basic Operations and Equipment, COMDTINST M13482.2 (series), or not approved for use by Commandant (G-OCA) is not authorized.

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*Continued on next page*



## Section H. Flight Maneuvers, Continued

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### **H.11. Shipboard Helicopter Operations**

These operations include helicopter landings and takeoffs aboard suitably equipped vessels, VERTREP, and Helicopter In-Flight Refueling (HIFR). When such operations involve military vessels, pilots shall comply with the requirements of the ship's parent service directives (i.e., Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) for Coast Guard, NWP 3-04.1 (series) for U.S. Navy, and APP 2 (series) for NATO).

Pilots shall comply with Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series) when such operations involve non-military vessels.

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### **H.12. Hoisting of Helicopter Passengers**

Hoisting of helicopter passengers is authorized when personnel are transported to or from remote and isolated sites or vessels where a helicopter landing would be impractical. Such transfers should be accomplished only after existing conditions and circumstances surrounding the event have been considered.

Hoist transfers shall not be made for convenience only. VIPs shall not be hoisted for administrative or logistical purposes.

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## Section H. Flight Maneuvers, Continued

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### **H.13. Hoisting of Divers**

Deployments of tank-equipped civilian or military rescue divers may be accomplished using the same procedures as used for harness deployments of Coast Guard Rescue Swimmers. The divers must be outfitted with Commandant (G-OCA) approved hoist harnesses and must have completed a Commandant (G-OCA) approved deployment familiarization syllabus. In the event a rescue diver is not equipped with the proper gear or has not completed the familiarization syllabus, the diver may only be deployed via the rescue basket, without the tanks. An additional basket hoist will be required for delivery of the dive tanks and other required gear. When available, a qualified Rescue Swimmer should be deployed before diver deployments to assist divers and survivors in the water. Freefall deployments of rescue divers, with or without tanks, are prohibited.

The use of rescue divers may be appropriate in SAR scenarios where the possibility exists that survivors are trapped in an overturned or submerged vessel or aircraft. Additionally, deployment of divers may be required while assisting local, state, and federal agencies in the execution of their duties.

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### **H.14. Hoisting of Boarding Team Members**

The District Commander, on a unit-by-unit basis, may authorize hoisting of Boarding Team members to vessels in a low threat environment. Such Boarding Team members must first complete a Commandant (G-OCA) approved qualification syllabus.

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### **H.15. Vertical Insertion Operations**

Vertical Insertion, commonly known as fast roping, is authorized for HH-60 units and Law Enforcement teams that have completed a Commandant (G-OCA) approved qualification syllabus.

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## Section H. Flight Maneuvers, Continued

### H.16. Rotary-Wing Restrictions

#### H.16.a. Rotor Blade Damage

If rotor blade damage in flight is known or suspected, the helicopter shall be landed as prescribed in the applicable flight manual.

Possible loss of the airframe after a safe landing is not sufficient cause to continue flight with rotor blade damage.

For further flight information, see Paragraph F.3 of Chapter 2.

#### H.16.b. Practice Autorotations

Practice autorotations must conform with the provisions of the applicable flight manuals and the following limitations:

- Practice autorotations shall be conducted only under daylight VMC;
- Practice autorotations shall be terminated with a power recovery at a minimum altitude of 10 feet; and
- Practice autorotations shall be terminated at 1000 feet with a no-flare recovery, if crash equipment is not immediately available.

#### H.16.c. Single-Engine Maneuvers

Practice single-engine maneuvers to a landing shall be conducted only at facilities that have crash equipment readily available.

#### H.16.d. Water Operating Cover Requirement (Training Operations)

A cover boat or a SAR-capable helicopter with effective two-way communications shall be underway/airborne in the immediate area for all rotary-wing water training flights that include the maneuvers listed below:

- Prolonged over water hovering/hoists by helicopters without single-engine continued flight capability;
- Rescue swimmer operations. Visual contact with the operation shall have been established by the cover boat or other helicopter before deploying the swimmer to the water; and
- Night approaches to the water, including PATCH, MATCH, or CATCH.

Before starting any such operation, the type of training, position, and the number of persons aboard each helicopter will be passed to and acknowledged by the unit providing cover.





## Section I. Flight Violations

### I.1. Initial Action

When a report of an alleged violation is received, a commanding officer shall take the following steps.

- Determine the name and command of each pilot involved.
- Within 24 hours, notify the command to which the pilot is attached that a violation has been alleged. Details concerning the alleged violation and a statement as to whether the pilot has been informed shall be included in this notification.
- When the aircraft involved in the alleged violation cannot be positively identified, commanding officers of other units or agencies that may assist in identification shall be contacted. If identification still cannot be made, and if a Coast Guard aircraft is involved, details of the alleged violation will be forwarded to Commandant (G-OCA).

### I.2. Investigation and Formal Report

#### I.2.a. Convening Investigation

A commanding officer of an air unit who receives a report of alleged violation of flying regulations, allegedly committed by a person attached to the command, shall convene an investigation to determine the facts.

#### I.2.b. Conducting Investigation

If confirmed information indicates a major violation, such as careless or reckless operation of an aircraft; willful unauthorized flying through special use airspace, ADIZ, or foreign airspace; or failure to obtain or comply with pertinent ATC instructions, an investigation shall be made in accordance with the Military Justice Manual, COMDTINST M5810.1 (series).

#### I.2.c. Letter Report to Commandant

If a preliminary investigation indicates that the matter is not serious enough to warrant action prescribed in Paragraph I.2.b, the commanding officer shall make a letter report to Commandant (G-OCA), through the chain of command.

#### I.2.d. Record Use

Refer to Chapter 9 of this manual for the use of the pilot's Accident and Flight Rule Violation Record.



## Section J. Offshore Flight Operations

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### Overview

The commanding officer of a unit to which an R/W or F/W aircraft is assigned must carefully weigh the urgency of each offshore mission.

Mission planning for offshore flight operations shall include an assessment of aircrew survivability and the risk management policy stated in Chapter 1, Paragraph D.2.

This analysis shall be based on the possibility that the aircrew might be forced into a survival situation during any phase of the mission.

---

### J.1. Aircrew Survivability Factors

There are three factors that should be evaluated for each mission over water:

1. Estimated time to loss of useful consciousness.
  2. Probable survival time.
  3. Estimated recovery time.
- 

#### J.1.a. Loss of Useful Consciousness

Loss of useful consciousness adversely effects the probable survival time since the crew member loses the physical ability to control the survival situation due to the debilitating effects of hypothermia, the abnormal lowering of internal body temperature. Even in situations where fatality from hypothermia is highly improbable, cold water greatly facilitates unconsciousness and/or death from drowning, often in the first 10 to 15 minutes, particularly for those not wearing flotation devices.

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## Section J. Offshore Flight Operations, Continued

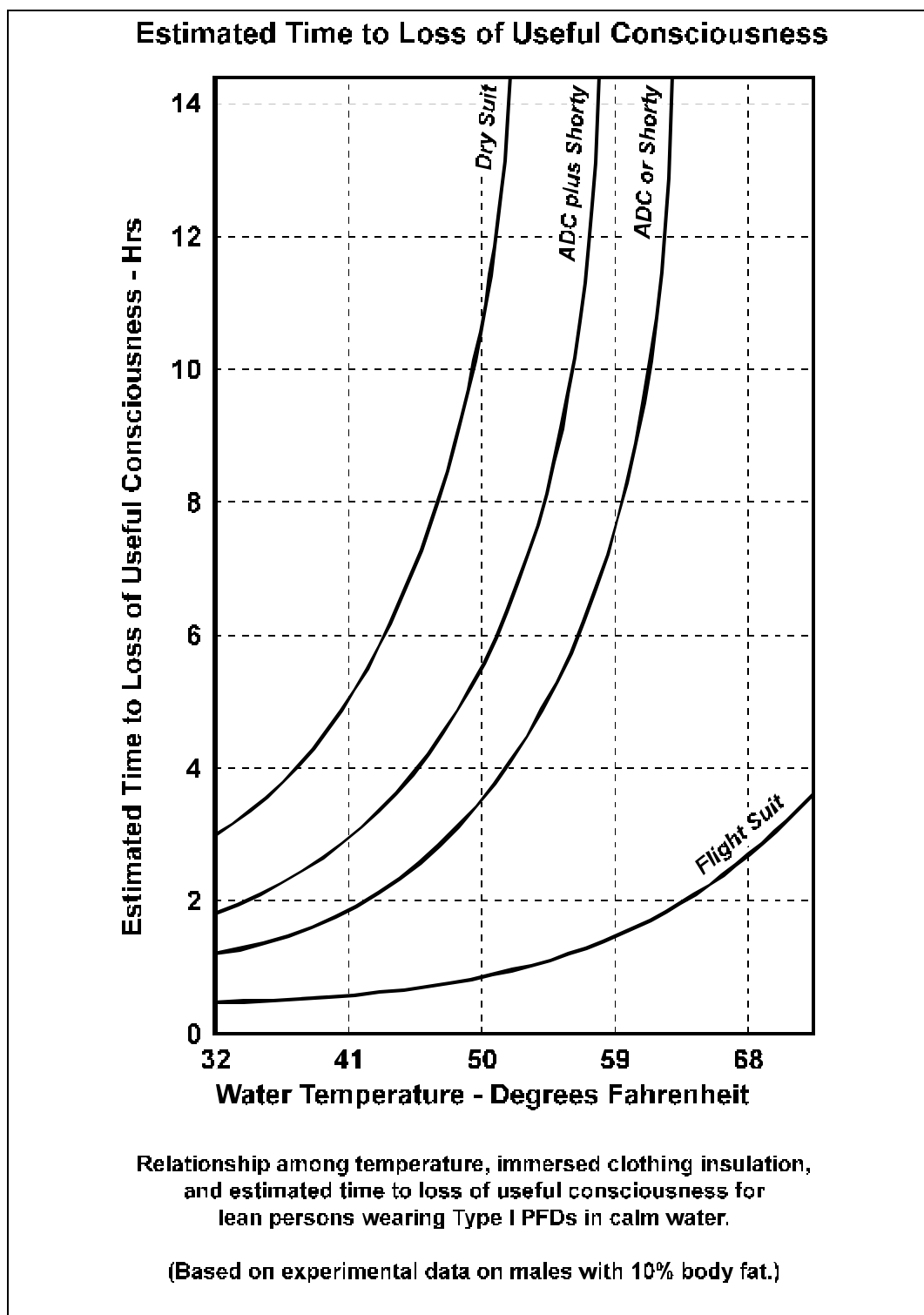


Figure 4-1



## Section J. Offshore Flight Operations, Continued

### J.1.b. Probable Survival Time

Exposure to the chilling effects of cold air, wind, or water can result in fatal hypothermia. The rate of body heat loss increases as air and water temperatures decrease.

Fatal results from hypothermia occur over four times more often in water than on land.

The curves in Figure 4-1 above were developed using known data points for specific sets of known conditions. In the general case, and even when conditions are close to those used to generate the curves, Figure 4-1 should be used as a guideline, not as a precise indicator.

A large amount of individual variability can be associated with different body sizes, builds, level of body fat, physical fitness, and state of health.

Specialized insulated protective clothing (e.g., survival suits, wet suits, etc.) are capable of increasing survival time from 2 to 10 times (or more) the basic duration shown in Figure 4-1.

HYPOTHERMIA FACTORS	
Slower Cooler	Faster Cooler
<ul style="list-style-type: none"> <li>• High body weight</li> <li>• Heavy clothing</li> <li>• Use of survival clothing</li> <li>• Use of a huddling or other protective behavior</li> <li>• Partially climbing out of the water</li> </ul>	<ul style="list-style-type: none"> <li>• Low body weight</li> <li>• Light clothing</li> <li>• Rough seas</li> <li>• Exercising, such as persons having to swim.</li> </ul>

SURVIVAL FACTORS	
Enhanced Survival Time	Diminished Survival Time
<ul style="list-style-type: none"> <li>• Heavy clothing and/or protective behavior (e.g., huddling with other survivors or adopting a fetal position in the water)</li> <li>• Climbing partially out of the water</li> </ul>	<ul style="list-style-type: none"> <li>• Physical activity (e.g., swimming)</li> <li>• Rough seas</li> <li>• Lack of a PFD</li> </ul>

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## Section J. Offshore Flight Operations, Continued

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### **J.1.c. Recovery Time**

Recovery time is the total elapsed time from the occurrence of a mishap until the aircrew is rescued. Recovery time includes the time required for recovery resources to become aware of the mishap, ascertain the position of the downed aircrew, proceed to scene, conduct a search, effect rescue, and begin appropriate medical treatment.

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### **J.2. Unescorted Operations**

The maximum recovery time should not exceed the estimated time to loss of useful consciousness.

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### **J.3. Escorts**

An escort should be provided anytime the commanding officer or PIC deems it necessary. An escort is recommended anytime the estimated recovery time exceeds the estimated time to loss of useful consciousness.

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## Section K. Night Vision Goggles (NVGs)

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### **K.1. Level Definitions**

There are five levels of NVG operation in the Coast Guard. The basic qualification, or Level 0, is the use of NVGs by crewmembers or one non-flying pilot when seated at a flight control or non-flight control position. The four remaining levels involve use of helmet or headgear mounted ANVIS type NVGs simultaneously by pilots at flight control positions on training and operational missions.

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### **K.2. General**

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#### **K.2.a. Qualification Requirements**

With the exception of Level 0, completion of a Commandant (G-OCA) approved ground and flight training program, appropriate for each level and aircraft type, is required before qualification. The qualification shall be recorded in accordance with Chapter 8. NVG ground training is recommended before Level 0 use.

Level I pilots must have at least four (4) hours of USCG NVG flight time with a minimum of one (1) hour in type prior to designation.

Completion of the ATC Mobile Night Vision Goggle Lab may be substituted for one (1) hour of flight time.

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#### **K.2.b. Approved Simulator**

NVG Level I training and up to one-half (1/2) of the minimum recurrent training requirements may be conducted in an NVG compatible flight simulator.

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#### **K.2.c. Special Attention**

NVG operations over land require special attention due to the terrestrial hazards of moonlight shadowing, the inability to detect wires, etc.

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*Continued on next page*



## Section K. Night Vision Goggles (NVGs), Continued

### K.2.d. Lighting

NVG compatible cockpit lighting is required to conduct Level I, II, III, and IV operations.

Aircraft cockpit/compartment lighting shall not be turned off or dimmed to interfere with safe operation of the aircraft.

Aircraft position lights shall not be turned off for NVG operations except as authorized by Commandant (G-OCA).

The anti-collision lights need not be lighted when the PIC determines that, because of operating conditions, it would be in the interest of safety to turn them off.

### K.2.e. Filters/vision Restriction Devices

Daylight NVG training filters or vision restriction devices are not authorized for NVG training.

### K.2.f. Ease of Removal

NVGs shall be hand-held or worn in such a manner that they may be immediately removed from the operator's field of view.

### K.2.g. "In Use" Definition

For the purpose of this section, helmet or headgear mounted NVGs are defined as "in-use" whenever the NVGs are flipped down within the operator's field of view.

### K.2.h. Shipboard Operation Use – Level IV

Table 4-1 describes the Level IV procedures.

The approved NVG ShipHelo procedures can be found in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

### K.2.i. Mixed Use in the Cockpit

Use of different types/models of Coast Guard issued NVGs by pilots in the same cockpit is authorized. In addition, the use of NVGs by only one of the pilots is authorized.

### K.2.j. Operational Minimums

Table 4-1 describes the operational minimums for NVG use.

*Continued on next page*



## Section K. Night Vision Goggles (NVGs), Continued

Table 4-1

Level	NVG Operating Minimums
<b>0 &amp; I</b>	
a. F/W	<ol style="list-style-type: none"> <li>NVGs shall not be used at flight control positions below 300 feet Above Water Level (AWL) or 500 feet AWL while maneuvering with full-face mask type NVGs.</li> <li>NVGs shall not be used at flight control positions below 500 feet Above Ground Level (AGL) or 800 feet AGL while maneuvering with full-face mask type NVGs.</li> <li>In the case of the HC-130, only one of the AC, CP, or FE may use NVGs at any given time.</li> </ol>
b. R/W	<ol style="list-style-type: none"> <li>NVGs shall not be used at flight control positions below 300 feet AGL, or 150 feet AWL except as noted below:               <ol style="list-style-type: none"> <li>Both pilots may use NVGs during PATCH, CATCH, MATCH, and IAS/VS letdown patterns. During each instrument approach, NVGs must be removed by the pilot at the controls before descending below 150' AWL. The safety pilot may use the NVGs throughout the entire approach, in a stable hover, and during automatic or manual departure from the water. Once stabilized in a hover with sufficient aided visual reference, the safety pilot with NVGs "in-use" is authorized to momentarily take the flight controls solely to allow the pilot executing the approach to transition from an instrument scan to an unaided visual hover.</li> </ol> </li> <li>NVGs shall not be used at flight control positions at distances closer than one-half (1/2) nautical mile laterally or 500 feet vertically from other aircraft.</li> </ol>
<b>II</b>	
a. F/W	N/A
b. R/W	<ol style="list-style-type: none"> <li>Level 0 &amp; I minimums.</li> <li>NVGs may be used for ground operations to include ground, hover, and air taxi.</li> <li>NVGs may be used to conduct visual and instrument approaches to a hover over land or to non-shipboard takeoffs and landings.</li> </ol>

*Continued on next page*





## Section K. Night Vision Goggles (NVGs), Continued

**Table 4-1, Continued**

<b>III</b>	
a. F/W	N/A
	1. NVG Level 0, I, & II minimums.
b. R/W	2. NVGs may be used when conducting:
	a. Visual and instrument approaches to the water.
	b. Hoists and R/S deployment and recovery sequences.
<b>IV</b>	
a. F/W	N/A
b. R/W	1. NVGs may be used to complete cutter and helicopter launch and recoveries when the cutter is NVG certified and cutter crew NVG qualified. The aircrew shall be NVG Level IV qualified to include all previous NVG level qualifications as required by helicopter type.



## Section L. Transportation Flights

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### Overview

In general, transportation flights are conducted as normal flights. However, there are a number of policies and reporting requirements that must be considered for VIP flights and any flight where transportation is either the primary or a secondary purpose.

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### **L.1. Arrival of VIP Flights**

Except in an emergency, VIP flights should not arrive before the latest ETA that has been forwarded to the destination. The latest ETA should be sent in ample time to permit notification of interested personnel.

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### **L.2. Transportation as the Primary Purpose**

Issues relating to transportation as the primary purpose are discussed in Chapter 5.

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### **L.3. Space Available Transportation**

This category of transportation should not be confused with the Military Space Available Program described in Paragraph L.4 below. Transportation within this category should normally be for official purposes only.

See Chapter 5, Section E, for information and guidance. In situations where Space Available Transportation for non-official purposes is contemplated, Appendix C (DOT Order 6050.1 (series)) and Section I of Chapter 5 should be consulted.

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### **L.4. Military Space Available Program**

This program authorizes space available transportation aboard military aircraft for members of the Armed Forces and certain others under specific conditions.

See Chapter 6 for information and guidance on this program.

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## Section M. Maintenance Flights

### Overview

Maintenance flights are by their very nature one of the most potentially hazardous flight regimes encountered on a day-to-day basis. In order to minimize the risks involved in this essential phase of aircraft maintenance, commanding officers shall ensure that all maintenance flights are conducted in compliance with the guidance provided herein, and with the proven practices specified in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).

Particular attention should be paid to crew experience, environmental factors, and preflight preparation, including detailed briefings on all aspects of the flight.

### M.1. Flight Verification Check

#### M.1.a. Restrictions

There are no special restrictions on pilot/crew assignment for flight verification checks.

#### M.1.b. Completion

Flight verification checks of any component(s) or system(s) shall be completed before continuing a sortie as an operational or training mission.

#### M.1.c. C-130 Maintenance Flights

For maintenance flights in C-130 aircraft that have been downgraded by the commanding officer to flight verification checks as provided for in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series), the following additional restrictions apply:

- Passengers shall not be carried; and
- Feathering of propellers shall be accomplished at or above 1000 feet AGL and in VMC.

#### M.1.d. Weather

Flight verification checks should be conducted in VMC, if the item to be checked is required for flight in IMC.

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## Section M. Maintenance Flights, Continued

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### M.2. Maintenance Test Flight

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#### M.2.a. Pilot and Crew Assignment

The minimum number of crewmembers shall be assigned to a maintenance test flight consistent with safe conduct of the flight and accomplishment of the required check(s).

Passengers shall not be carried.

The PIC shall occupy a pilot seat throughout the flight and shall operate the primary flight controls during takeoffs and landings.

Technical Observers may be included as part of the minimum number of crewmembers if their presence is required to accomplish the objectives of the test flight.

Minimum pilot requirements for test flights are:

- All Except SRR Helicopters— an AC and FP. A commanding officer may authorize a copilot in lieu of the first pilot for deployed aircraft.
  - SRR Helicopters— an AC.
  - When practicable, an aeronautical engineering officer should be assigned to test flights of unit aircraft. It is not necessary for the aeronautical engineering officer to be the PIC.
  - Minimum requirements for ground turns in the HH-60 are an AC and qualified aircrew. The aircrew must occupy the CP seat.
- 

#### M.2.b. Precautionary Information

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##### M.2.b.(1) Maintenance Briefing

Before a test flight, the PIC shall be briefed by maintenance personnel as to the exact nature of the maintenance performed and the procedures to be used to accomplish the functional check(s).

Administrative procedures to ensure fulfillment of this requirement are prescribed in the Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series).

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## Section M. Maintenance Flights, Continued

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**M.2.b.(2)  
Feathering**

Feathering of propellers or engine shutdowns shall be accomplished at or above 6000 feet AGL and in VMC.

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**M.2.c. Clearance  
Criteria**

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**M.2.c.(1) Weather**

Test flights should be conducted during daylight hours in VMC. However, if necessary to accomplish assigned operational missions, the commanding officer may waive this requirement if the flight can be conducted safely under the existing conditions.

**This authority may not be delegated.**

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**M.2.c.(2) Hover  
Checks**

Hover checks for helicopters may be accomplished at any time at the discretion of the commanding officer.

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## Section N. Ferry Flights

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### **N.1. Transfer Authority**

Commandant (G-OCA) will direct the transfer of all aircraft.

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### **N.2. Inventory and Custody**

When an aircraft is transferred between reporting custodians, the procedures contained in the Aircraft Transfer Process Guide (CGTO PG-85-00-160) shall be used.

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### **N.3. Operational Ferry Flights**

Ferry flight rest requirements in Table 3-3 are authorized for aircrew flying aircraft from point to point to pre-position or relocate for operational missions.

A change in ferry status will revert aircrew back to normal rest requirements in Table 3-3.

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## Section O. Orientation Flights

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### **O.1. Orientation Flight Program**

Participation in orientation flights is intended to afford first hand opportunities to observe the missions of Coast Guard aviation. Orientation flights shall be secondary to an assigned primary mission of the flight. Participation in a flight for orientation purposes is not considered “transportation,” although participants shall be manifested as passengers.

Since it is possible for flights that are assigned a bona fide primary mission to be used also for secondary purposes, transportation and/or orientation flight opportunities may be scheduled on the same flight, both in a secondary purpose of flight capacity.

Regardless, the person(s) receiving the orientation flight opportunity may not use the same flight for point-to-point transportation purposes. For example, a local area orientation flight for an official may be scheduled as a secondary purpose of a flight that is primarily scheduled for LE or MEP. However, the flight may not stop at a location other than the point of origin to deplane the official for follow-on purposes; to do so, the official must be in a transportation status, not an orientation status.

A district or group commander’s over flight reconnaissance of their area of operation for familiarization is neither transportation nor orientation, but rather a Mission Requirement for the effective conduct of command and control responsibilities.

The orientation flight program includes two categories of flight opportunities: 1) operational orientation and 2) restricted orientation flights. These categories are described in Paragraphs O.4 and O.5 below.

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## Section O. Orientation Flights, Continued

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### **O.2. General Restrictions**

Flights that include orientation shall normally depart and return to the same location. Reasonable stopovers are permitted as long as participants remain, for all practical purposes, with the aircrew and conduct no other business.

Orientation flights shall only be conducted in multi-engine aircraft.

Participants shall be properly identified and sponsored, and where applicable, the appropriate organization uniform shall be worn.

Sponsoring organizations that require parental consent for their own members to participate in special activities shall be responsible for satisfying their own such needs; the Government has no such requirement.

Only minor additional expenditure of operating funds is authorized for these flights.

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### **O.3. Approval Authority**

The minimum level of approval authority for orientation flight opportunities is no lower than the commanding officer of aviation units with aircraft assigned and of vessels with aircraft embarked or deployed.

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### **O.4. Operational Orientation Flights**

Operational orientation flight opportunities are intended to afford full operational familiarization with the missions of Coast Guard aviation. Due to the inherent increased level of risk associated with operational missions, such flights are limited to those personnel whose professional interaction with the Coast Guard will be clearly enhanced.

Exposure of participants to unusual or hazardous conditions should be kept to a minimum. Authorized participants include the following.

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## Section O. Orientation Flights, Continued

### **O.4.a. USCG Academy Cadets and Flight Surgeons**

The Cadet Aviation Training Program (CATP) for USCG Academy cadets is a valuable orientation program. Flying the aircraft greatly enhances the overall cadet exposure to aviation and its role in the Coast Guard mission. In this program, cadets are allowed to occupy a pilot seat and operate the flight controls. Flight Surgeons get an initial exposure to flying aircraft as an important part of their training. Remaining familiar with the physiological aspects and dynamic nature of flight through orientation flights provides valuable experience and assists the Flight Surgeon in making informed medical decisions involving pilots and aircrew. Cadets and Flight Surgeons may not occupy a primary flight control position while using NVGs. Flight conditions shall be VFR, along with the following restrictions.

#### **O.4.a.(1) Seat Occupation**

An aircraft commander shall occupy the pilot's seat (left seat for F/W, right seat for R/W).

For HU-25 aircraft, the second pilot should occupy the jump seat as a safety observer.

For HC-130 aircraft, the second pilot should remain on the flight deck.

#### **O.4.a.(2) HU-25 and HC-130 Aircraft**

For HU-25 and HC-130 aircraft, cadets, and Flight Surgeons shall not occupy a pilot's seat below, 1,000 feet AGL/AWL.

Cadets and Flight Surgeons may operate the controls above 1,000 feet AGL/AWL.

#### **O.4.a.(3) HH-60 Aircraft**

For HH-60 aircraft, cadets and Flight Surgeons may not occupy either pilot's seat during flight.

#### **O.4.a.(4) HH-65 Aircraft**

For HH-65 aircraft, cadets and Flight Surgeons may occupy a pilot's seat during takeoff and landing. Cadets and Flight Surgeons may operate the controls above 500 feet AGL/AWL.

*Continued on next page*



## Section O. Orientation Flights, Continued

### O.4.b. Prospective Cadets/Selectees

This category includes prospective U.S. Coast Guard Academy Cadets, Officer Candidate School (OCS) selectees, and Direct Commission Program selectees. Persons in this category must show written proof that they have:

- Been tendered an appointment;
- Been selected;
- Been designated a finalist; or
- Prospective U.S. Coast Guard Academy Cadets - been assigned a sponsor under the Academy Sponsor Program.

### O.4.c. Coast Guard Auxiliary

Coast Guard Auxiliary members, on competent orders.

### O.4.d. Civil Air Patrol

Senior and cadet members of the Civil Air Patrol. However, such personnel are authorized to:

- Take part, without restriction, in joint Coast Guard-Civil Air Patrol SAR or SAREX missions.

Take part in non-SAR operational or logistic flights in multi-engine aircraft when performing official CAP duties and traveling under appropriate Transportation Authorization (TA) issued by proper Authority.

### O.4.e. U.S. Uniformed Services Members

U.S. Uniformed Services members on active duty.

### O.4.f. FAA Employees

FAA employees may also participate for:

- Flight-checking local Coast Guard air traffic control procedures and facilities, navigational aids, communications, and approach and departure procedures.
- Examining rated aircrew personnel of the Coast Guard for civil pilot, navigator, or engineer certificates or ratings, provided a seating position permits direct monitoring of aircrew duties. Flights during which these examinations take place are not limited to the local flying area.
- Familiarization with Coast Guard missions, flight profiles, and other interface with Air Traffic Control procedures and facilities.

*Continued on next page*



## Section O. Orientation Flights, Continued

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### **O.4.g. Foreign Nationals**

Foreign nationals, as representatives of their government, when participating in a joint mission involving the Coast Guard, or other official activity that provides an operational advantage to all parties. These flights must have the concurrence of Commandant (G-IIA).

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### **O.4.h. Representatives of the Media**

Representatives of the media when such participation will provide improved media coverage and will serve the interest of the Coast Guard and the public.

Commandant (G-IPA) shall be notified through district (dpa) at the earliest opportunity to gain awareness of the event. However, Commandant (G-IPA) approval is not required. For local media flights, units shall notify district (dpa) at the earliest opportunity.

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### **O.4.i. Science Community Members**

Science support personnel working under the National Science Foundation (NSF) or other government agency direction, when such participation enhances his or her understanding of the science performed in the AOR.

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## Section O. Orientation Flights, Continued

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### **O.4.j. Congressional Members and their Staff**

Congressional members or their staff sent to observe Coast Guard operations. Providing these members and/or their staff the opportunity to observe operations from the air will give them a better understanding of Coast Guard missions.

Requests shall be submitted to Commandant (G-ICA) via the most expeditious means. Commandant (G-ICA) will review requests and then forward them to the Executive Assistant to the Commandant (G-C-10) for endorsement.

In those instances where Congressional personnel contact an Air Station directly to request a flight, Commandant (G-ICA) will require the following information to process the request: date request received, originator of the request, date/location of flight, type of aircraft to be used, name and titles of personnel participating, purpose of the flight, flight plan, principal USCG units/personnel involved, USCG personnel escorting delegation, benefit to the USCG and Federal government, impact of denial, POC for Air Station and Congressional Staff.

Once endorsed, requests will be sent for approval to the DOT Assistant Secretary for Governmental Affairs.

### **O.4.k. Coast Guard Civilian Employees**

Coast Guard civilian employees that will benefit from the exposure to Coast Guard missions provided by an Orientation Flight.

*Continued on next page*



## Section O. Orientation Flights, Continued

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### **O.5. Restricted Orientation Flights**

Aircraft orientation flight opportunities are intended to afford a limited, brief familiarization with the missions of Coast Guard aviation, without exposure to the level of risk associated with operational missions. Such flights are restricted to the local flying area, and the amount of time necessary for the orientation.

Participation in helicopter flights must be during daylight VFR flight conditions. Participants shall not be subjected to unusual or hazardous conditions. The following are authorized participants:

- Senior and Junior ROTC Cadets, designated applicants and key civilian officials of the sponsoring school directly involved in administering the ROTC program.
- Naval Sea Cadets, and accompanying adult leaders.
- Explorer or Senior Scouts of the Boy or the Girl Scouts of America, and accompanying adult leaders.

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### **O.6. Special Circumstances**

Restricted orientation flights of nominal duration for special circumstances not already listed here may be requested. Special requests shall normally be limited to humanitarian requests, VIPs, etc., when in the best interest of the Federal Government, unusual public relations benefit, or humanitarian goodwill will be enhanced.

When a request for such transportation is forwarded to higher authority, all pertinent details shall be provided with the request sufficiently in advance to enable a timely review and decision.

Amplifying information should include:

- Personnel involved;
- Aircraft type;
- A description of the purpose of flight;
- The benefit to the interest of the Federal Government; and
- An assessment of impact of denial.

All such requests shall be considered on a case-by-case basis. Such special requests, if deemed desirable, shall be sent via the chain of command to Commandant (G-OCA) for review and forwarding to the Vice Commandant for approval.

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## Section P. Participation of Aircraft in Flight and Static Displays

Overview	<p>Various organizations request the participation of Coast Guard aircraft in local demonstrations and celebrations. Several provisions of the Public Affairs Manual, COMDTINST M5728.2 (series), are applicable as modified herein.</p> <p>Contact the District Ethics Office for current procedures for accepting gifts of travel expenses for Coast Guard personnel participating in air shows and static displays.</p>
<b>P.1. Approval Authority</b>	<p>The area or district commander (of the area or district to which the aircraft is assigned) has the authority to approve the participation of Coast Guard aircraft in all flight and static displays.</p> <p>The term Area Commander or District Commander should be substituted for Secretary of (a department) when applying the provisions of the Aircraft Participation section of the Public Affairs Manual. The Commanding Officers of ATC and ARSC have approval authority for participation of their aircraft in flight and static displays; Commandant (G-OCA) shall be notified of such participation.</p>
<b>P.1.a. DoD Eligible Events for Military Aircraft</b>	<p>With appropriate area/district commander approval, Coast Guard aviation units may provide aircraft to participate in DoD approved eligible events for military aviation.</p> <p>Separate requests for Coast Guard participation from the sponsors of these DoD approved events are not required. Coast Guard crews participating in these events shall cooperate with appropriate DoD and sponsor requirements.</p>
<b>P.1.b. Foreign Events</b>	
<b>P.1.b.(1) Standard Procedure</b>	<p>In addition to the previously noted procedures, requests for flight and static displays in other countries shall be forwarded to Commandant (G-CI) for participation clearance.</p>

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## Section P. Participation of Aircraft in Flight and Static Displays, Continued

### **P.1.b.(2) Short-Notice Procedure for Coast Guard Vessels in Foreign Waters**

Vessels with helicopters embarked or deployed while visiting foreign ports or transiting foreign territories may be asked to provide helicopter flight or static demonstrations on short notice.

Commanding officers of such vessels may authorize demonstrations provided the following conditions are met:

- Diplomatic clearance for flight within the host country airspace must have been previously obtained in accordance with Foreign Port Calls, COMDTINST 3128.1 (series);
- Transportation of foreign nationals is not involved; and
- Instructions contained in the USAF Foreign Clearance Guide have been followed.

### **P.1.c. Exceptions to Public Affairs Manual Requirements**

If any of the stipulations in the Public Affairs Manual cannot be met, but the district/area commander considers the request reasonable, the request should be forwarded to Commandant (G-OCA) for approval. Such requests must include a listing of the reasons for the exceptions and the area or district commander's recommendation.

### **P.2. Policy**

Organization sponsors requesting the participation of Coast Guard aircraft and participating Coast Guard aircrews are governed by the following policy.

#### **P.2.a. Mission Impact and Cost**

Sponsors must understand that in all cases, Coast Guard participation must not interfere with Coast Guard operations and training programs, and must be at no additional cost to the U.S. Government.

#### **P.2.b. Space for Recruiting**

Sponsors should consult with local Coast Guard recruiters and provide, at no charge, prime space at the event site for recruiting activities.

#### **P.2.c. Profit**

Sponsors must understand that the Coast Guard is unable to support events for which sponsorship is intended to make a business profit. Admission or other charges do not necessarily preclude Coast Guard participation. The Coast Guard cannot participate in events that charge admission unless its participation is incidental to the event, and not the primary attraction.

*Continued on next page*



## Section P. Participation of Aircraft in Flight and Static Displays, Continued

### **P.2.d. Considerations for Participation**

Participation of Coast Guard aviation assets shall be committed only after consideration of safety, availability of assets, public demand, unit missions, event focus and appropriateness of participation, and equitable treatment of all eligible requests.

### **P.2.e. Flyovers/ Flight Demonstrations**

Requests for aircraft flyovers or flight demonstrations will be considered for aviation oriented events (i.e., air shows, airport anniversaries, or dedication events); for patriotic observances (1 day only) held in conjunction with Armed Forces Day, Memorial Day, Independence Day, POW/MIA Recognition Day, or Veterans Day (event must be within seven days of the actual holiday date to be considered); or for public affairs activities in support of local community relations programs of the Coast Guard.

Other events may be considered on a case-by-case basis, and must have clear benefit to the U.S. Government. All requests for flyovers or flight demonstrations, whether for the observances listed here or any others, shall be forwarded for approval by the area or district commander.

### **P.2.e.(1) Holiday Flyovers**

Flyovers for the five patriotic holidays are limited to one to four aircraft of the same type making a single pass.

### **P.2.e.(2) Funeral Flyovers**

Missing man formations are not authorized for community relations' events, but reserved for individual funeral or memorial services for designated active duty rated personnel or dignitaries of the U. S. Armed Forces and Federal Government.

### **P.2.e.(3) Joint Flyovers**

Joint flyovers involving Coast Guard and DoD aircraft shall be governed by DoD policy.

### **P.2.f. Static Displays**

Requests for aircraft static displays will be considered only for air shows, airport events, expositions and fairs, and public events that contribute to the public knowledge of Coast Guard equipment capabilities and missions. Such events include recruiting and Coast Guard Day celebrations.

All requests for static displays shall be forwarded to the area or district commander for approval.

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## Section P. Participation of Aircraft in Flight and Static Displays, Continued

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**P.3. Responsibilities** Except for DoD-approved eligible events for military aircraft, sponsors are required to submit a written request for participation of Coast Guard aircraft in flight and static displays for approval through the local Coast Guard installation before the event.

If a flyover or flight demonstration is planned, the sponsor is responsible for coordinating airspace use with, and complying with any restrictions imposed by the Federal Aviation Administration (FAA), or the appropriate foreign government agency, before submitting the request to the Coast Guard. The sponsor is responsible for all necessary security and safety precautions. In the request, the sponsor shall provide:

- The name, address, phone number of the organization, and a point of contact; and
- The event title, a description of the theme or objective, details of the location (i.e., airport, lake, park, city/state, elevation, runway length and width, etc.), and estimated attendance.

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**P.4. Records** A copy of the correspondence approving the request shall be attached to the flight record for each aircraft participating in the event.

In the case of DoD-eligible events for military aircraft, reference shall be made to the correspondence listing the approved event.

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## Section Q. Other Regulations and Considerations

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### Q.1. Customs and Immigration

Commanding officers shall ensure that all aircrews comply with applicable customs, immigration, public health, and agriculture regulations.

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### Q.2. Pets

Normally, pets are not authorized on government aircraft, except in very unusual circumstances, and at no cost to the Government. Bona fide working animals (i.e., guide, rescue, or police dogs) are not “pets” and are authorized transportation when accompanied by a handler.

Discretionary approval of pet transportation lies with the commanding officer, unless otherwise stated in this manual.

Pets are specifically not authorized in conjunction with Environmental and Morale Leave (EML) travel aboard Coast Guard aircraft.

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### Q.3. Annoyance to Persons and Endangering Property

Flights of Coast Guard aircraft shall cause a minimum of annoyance to persons and activities on the ground. It is not sufficient that the pilot is satisfied that no person is actually endangered. The pilot must exercise enough caution to be assured that no person on the ground could reasonably believe that they or their property is endangered. Except for operational missions requiring otherwise, the following specific restrictions apply:

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#### Q.3.a. Fur and Poultry Farms

Fur and poultry farms shall be avoided. Valuable broods and litters may be lost due to panic caused by aircraft.

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#### Q.3.b. Resorts

Resorts, including beaches, shall be avoided by F/W aircraft by at least one mile when at an absolute altitude of less than 2000 feet and by R/W aircraft by at least 1/4 mile when at an absolute altitude of less than 500 feet. However, this limitation is waived when these areas are overflown in normal en route flights on airways, other point-to-point flights, or in compliance with an approved traffic or approach pattern.

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## Section Q. Other Regulations and Considerations, Continued

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### **Q.4. Disturbance of Wildlife**

Commanding officers shall take steps to prevent unnecessary flying over known haunts of wildlife. When it is necessary to fly over such areas, an absolute altitude of at least 2000 feet shall be maintained except during emergency operations, such as emergency SAR, law enforcement, spill response, or during those portions of non-emergency missions requiring surveillance and identification of vessels. The amount of aircraft time spent at low altitudes should be limited. Routine training in and transits through critical habitat and high-use areas will not be conducted below an altitude of 2000 feet.

Hunting from any aircraft is prohibited.

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### **Q.5. Smoking in Aircraft**

Smoking in Coast Guard aircraft is prohibited.

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### **Q.6. Volcanic Ash Precautions**

Avoid aircraft operations in the general area of volcanic activity unless specifically directed by higher authority. Since volcanic dust may extend for several hundred miles, flights should be planned well clear of the area and, if possible, the flight path should be above or on the upwind side of the volcanic dust. If volcanic dust is encountered, serious damage to aircraft surfaces, engines, windshields, and pitot static systems may occur. Aircraft, which have encountered volcanic dust, will not be cleared to fly until suitable maintenance inspections have been accomplished.

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## Section Q. Other Regulations and Considerations, Continued

### **Q.7. Cockpit Strategic Napping**

The Flight Planning Crew Utilization guidance of Chapter 3 is intended to assure a crew that is sufficiently rested to meet mission requirements. However, the long-range nature of C-130 missions can present unique challenges to crew alertness, despite meeting crew rest requirements. Such missions may involve protracted transit or loitering periods during which deliberate crew napping may improve alertness during more critical portions of the flight. When necessary, cockpit strategic napping is permitted subject to the following:

- Due to the increased staffing and mission requirements, cockpit strategic napping will only be employed in the C-130 community.
- Anticipated cockpit strategic napping will not be relied upon in evaluating crew fatigue during pre-mission planning.
- Cockpit strategic napping will be used only during a low-workload portion of the flight (i.e. during transit or loitering at altitude with minimal conflicting traffic threat.)
- To avoid post-awakening drowsiness from sleep inertia of deeper sleep, naps will be limited to 40 minutes maximum.
- Crewmembers employing strategic napping should be awakened one hour before an anticipated high workload event to ensure full alertness.
- Of the two pilots and flight engineer, only one may nap at a time. The remaining two crewmembers must remain in their crew positions.
- Hard deck altitudes and minimum airspeeds will be pre-briefed.
- The autopilot, Ground Proximity Warning System and Traffic Alert and Collision Avoidance System will be employed.
- If fatigue will unacceptably degrade safety, the mission will be discontinued and a replacement crew assigned.



## Section R. Firearms

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### Overview

There is an operational requirement for firearms to be carried on board Coast Guard aircraft by members of various law enforcement agencies, and in some cases by Coast Guard flight crewmembers.

The policy on firearms on board Coast Guard aircraft is established with the intent to provide the maximum personnel readiness while minimizing the potential for an accidental discharge.

The condition of firearms is mission and scenario dependent, (i.e., loaded/unlocked, round chambered/clear.) Missions are discriminated by whether the aircraft is used for transport only, or situations where the aircraft/crew are part of a special operation requiring personnel to be armed.

For general shipment of firearms/ammunition as cargo, the guidance provided in AFJMAN 24-204, Preparing Hazardous Materials for Military Air Shipments, Chapter 3, shall be used.

In cases where the aircraft/crew are part of the specific operation with the armed contingent, firearms may be carried on Coast Guard aircraft subject to the following restrictions.

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## Section R. Firearms, Continued

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### **R.1. Firearms Carried by Coast Guard Flight crews**

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#### **R.1.a. Handguns**

Unless specifically required due to the operational environment, (e.g., Operation Bahamas and Turks and Caicos (OPBAT) and HITRON) Coast Guard flight crewmembers shall not carry handguns on board aircraft. If carried, all flight crewmembers allowed to carry firearms shall be qualified and current in accordance with the Ordnance Manual, COMDTINST M8000.2 (series).

Only Coast Guard-issued weapons will be used. The use of personal firearms is prohibited.

Handguns carried by flight crewmembers shall be carried with a magazine inserted, round chambered, decocked, with the decocking or safety lever in the SAFE position. This is an authorized deviation from Ordnance Manual, COMDTINST M8000.2 (series); it is required for aircraft safety. The weapon shall remain in the holster with the retaining strap fastened at all times unless conditions specified in Paragraph R.5 develop.

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#### **R.1.b. Long Rifles/Shotguns/ Semiautomatic/ Automatic Weapons**

Unless specifically required due to the operational environment, (e.g. OPBAT, HITRON, or Polar Operations ) these weapons shall not be carried by Coast Guard flight crewmembers on board aircraft. If these types of weapons are carried, adequate mounting brackets or storage shall be provided so that the flight crewmember is not required to hold the weapon. The weapon will be removed from the bracket only when directed by the PIC and when a situation specified in Paragraph R.5 develops.

These weapons shall not be loaded, nor shall a round be chambered until directed by the PIC.

These weapons shall be Coast Guard-issued and used only by flight crewmembers who are qualified and current in accordance with the Ordnance Manual, COMDTINST M8000.2 (series). The use of personal firearms is prohibited.

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## Section R. Firearms, Continued

### **R.1.c. Authorization to Carry Firearms**

If the commanding officer of an aviation unit determines that there is a requirement for aircrews to carry firearms aboard unit aircraft, he or she shall submit a written request, through the chain of command, to Commandant (G-O).

### **R.2. Firearms Carried by Military Troops and LE Officers on Board CG Aircraft**

Subject to the commanding officer's approval, military troops and law enforcement officials, operating in an official capacity, will normally be allowed to carry their weapons while being transported on Coast Guard aircraft. Those officials shall adhere to the policy within this section.

### **R.2.a. Missions Requiring Transportation for Logistics**

Weapons may be carried on missions requiring transportation for logistics.

The weapons can be loaded but will not have a round in the chamber. Personnel shall clear their weapons, in a safe area away from the aircraft and from public areas, before boarding the aircraft.

### **R.2.b. Other Missions**

The policy in Paragraph R.1 of this chapter shall apply on missions where:

- Transportation of personnel where the aircraft is part of the support, (e.g., dignitary protection); or
- Operations where Coast Guard personnel as well as other agency personnel are armed as part of a mission.

The weapons that other agencies carry may differ from Coast Guard weapons. It is prudent for the PIC to ascertain what type of weapon each armed official carries and provide him or her a brief of the Coast Guard firearm policy before the flight. The following guidance shall apply:

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## Section R. Firearms, Continued

- 
- R.2.b.(1) Handguns** Single action handguns (the hammer must be manually cocked other than by pulling the trigger) shall NOT have a round chambered (under the firing pin). Handguns designed with an internal or operator activated device that “physically” locks the firing pin in the retracted position unless the trigger is pulled, and double action handguns (the hammer/weapon is cocked and released by pulling the trigger) shall be allowed to have a round in the chamber with the handgun safely decocked and holstered. All handguns with mechanical safety devices shall have those safeties engaged.
- All handguns shall remain holstered at all times unless conditions specified in H.7 of this chapter develop. Under no circumstances are the military troops or law enforcement officials authorized to discharge their weapons from the aircraft without the approval of the PIC.
- 
- R.2.b.(2) Long Guns** Long guns (rifles, submachine guns, shotguns), regardless of agency policy, shall be transported unloaded, i.e., no ammunition inserted into the weapon, unless specifically authorized by the PIC.
- If adequate brackets are available, long guns shall be carried in the same status or condition per Paragraph R.1.b of this chapter. If brackets are not available, the long guns shall be secured in a manner acceptable to the PIC.
- Under no circumstances are the military troops or law enforcement officials authorized to load and/or discharge their weapons from the aircraft without the approval of the PIC.
- 
- R.3. Authority and Responsibility of the PIC** The PIC shall ensure that the policy provided in this section is enforced. In cases not specifically covered, he or she shall be the final authority as to the condition of firearms to be carried on Coast Guard aircraft.
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## Section R. Firearms, Continued

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### **R.4. Firearms**

#### **Transported as**

#### **Checked Baggage or Cargo**

Firearms transported as checked baggage or cargo on board Coast Guard aircraft will be unloaded and surrendered to a flight crewmember for stowage in accordance with AFJMAN 24-204.

In cases where a survivor or object of a search is recovered and found to have a firearm in his or her possession, the firearm shall be unloaded and surrendered to a flight crewmember for stowage.

At no time are firearms, which are transported as cargo, to be hand carried by the custodian while in flight.

Firearms transported as checked baggage shall be adequately secured to be inaccessible to passengers while they are aboard the aircraft.

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### **R.5. Airborne Use of Force**

The Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series) and the Maritime Counter Drug and Alien Migrant Interdiction Operations, COMDTINST M16247.4 (series) (NWP 3-07.4) currently states that the use of force from aircraft is not allowed.

However, the Commandant authorized an exception to this policy for HITRON to use warning shots and disabling fire.

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## Section R. Firearms, Continued

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**R.5.a. Deadly Force** The use of deadly force (or suppression fire) from an aircraft is authorized only when necessary to defend the aircrew and embarked persons from imminent threat of death or serious bodily injury, and only where the circumstances make the use of deadly force appropriate. This policy is prescribed in the Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series) and the Maritime Counter Drug and Alien Migrant Interdiction Operations, COMDTINST M16247.4 (series) (NWP 3-07.4)

In addition to the reports required by the Maritime Law Enforcement Manual, COMDTINST M16247.1 (series) if deadly force or suppression shots are fired from Coast Guard aircraft, an immediate telephone report shall be made to Commandant (G-OCA), or Coast Guard Headquarters Command Center (G-OFP) for after hours incidents, via the operational commander.

A message report, providing the details of the incident, shall be sent to Commandant (G-O), through the chain of command, within four hours of notification of the incident or end of the flight, whichever occurs first.

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## Section S. Electronic Equipment

### Overview

Personal Electronic Devices (PEDs) or electronic equipment can interfere with or can be hampered by an aircraft's avionics system. Therefore, an Electromagnetic Interference/Electromagnetic Compatibility (EMI/EMC) Safety of Flight Test (SOFT) must be conducted to check the operation of the equipment before the installation or operation of any PED or electronic equipment on USCG aircraft.

### S.1. Approval Procedures

Commandant (G-SEA) will manage the EMI/EMC SOFT Program. Units should contact the Electronics Engineer at the ARSC Engineering Support Cell to coordinate testing of any proposed electronic equipment. Installations of prototypes require completion of EMI/EMC testing and feasibility approval from the ACCB.

### S.2. Cellular Telephones

Non-airspace approved and EMI/EMC SOFT tested cellular telephones shall not be used on aircraft while airborne.

### S.3. Defibrillators

The use of manual defibrillators by qualified providers, as defined by Commandant (G-WKH), is approved for use aboard all Coast Guard aircraft.

The use of only Commandant (G-WKH) approved Automatic External Defibrillators (AED) by qualified providers, as defined by Commandant (G-WKH), are authorized for use aboard all Coast Guard aircraft.

Defibrillators are required to use internal batteries as the sole power supply. No connection to aircraft power is allowed.

Transcutaneous pacing (external electronic control of the patient's heartbeat) is prohibited





## CHAPTER 5: TRANSPORTATION

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## Chapter 5. Transportation

### Overview

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#### Introduction

Department of Transportation Order 6050.1 (series) is the primary policies and procedures guide to be consulted for the responsible management and use of DOT aircraft. The DOT Order is included in this Manual as Appendix C.

This chapter addresses the pertinent information of that document as it applies to the Coast Guard, as well as addressing Coast Guard specific policies not covered within the DOT Order. This chapter is not intended to alter or replace any information contained in the DOT Order.

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#### In this chapter

This chapter is divided into ten sections:

- Important Questions
  - Mission Requirements Use
  - Required Use
  - Other Transportation for the Conduct of Official Business
  - Space-Available Transportation
  - Transportation of Senior Federal Officials, Senior Branch Civilian Officials, DOT Senior Level Officials, and Non-Federal Travelers
  - Transportation of Family Members of Senior Level Officials and Senior Executive Branch Officials on Official Travel
  - Congressional Transportation on CG Aircraft
  - Transportation of All Other Non-Official Passengers
  - Transportation of Cargo
-



## Section A. Important Questions

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### A.1. Important Questions

When determining the policies for transportation aboard Coast Guard aircraft, several questions must be addressed.

- ***Does the flight involve the transfer of individuals or cargo from point A to point B?*** If not, then the flight is something other than transportation, and alternate chapters should be consulted. (Example: if it is an orientation flight, Chapter 4 should be consulted.)
- ***Is the travel being conducted for official or non-official purposes?*** Travel aboard DOT aircraft is restricted to official purposes only. Coast Guard aircraft may not be scheduled or used to satisfy personal travel desires.
- ***Which category of Official Transportation does the flight fall under?*** Official transportation is separated into three distinct headings: Mission Requirements Use, Required Use, and Other Transportation for the Conduct of Official Business. Each category requires different levels of documentation to justify the flight. A discussion of each of these categories will follow.
- ***Is transportation the primary or secondary purpose of the flight?*** The purpose of the flight will dictate the need for cost comparisons. Flights in which transportation is not the primary objective require no cost comparisons with commercially available resources. Flights in which transportation is the principal goal, however, may require that cost comparisons be made.
- ***Is the traveler a Senior Federal Official, Senior Executive Branch Official, or one of their dependents?*** Individuals who fall within this category, including O-9s and O-10s, must undergo a separate approval process than from the one established for Coast Guard personnel. This process is described in DOT Order 6050.1 (series), located in Appendix C.

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## Section A. Important Questions, Continued

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### A.1. Important Questions (cont'd)

- ***Is the traveler a member of Congress or on a member of Congress's staff?*** Requests for Transportation or Orientation for Congressional personnel shall be forwarded to Commandant (G-ICA) for processing. See Chapter 4 (Orientation) or Chapter 5 (Transportation) for more information.
  - ***Is transportation being requested for the benefit of a Federal, State, or Local Government Agency?*** If another government Agency is requesting transportation aboard Coast Guard aircraft, then it is necessary for that agency to provide the information necessary to justify the flight. Such flights, whether Transportation or Orientation, are authorized as Co-Op Federal, State, or Local, depending on what agency is requesting the flight. When a clear determination of approval authority is not possible, the need for transportation shall be referred to Commandant (G-OCA).
-



## Section B. Mission Requirements Use

---

### B.1. Overview

Coast Guard aircraft are most frequently used in direct support of the programs that fulfill the Coast Guard's statutory responsibilities, or in programs that the Coast Guard has been authorized to perform.

Mission Requirements Use is the category for Coast Guard aircraft being utilized in this manner. When transportation occurs in support of a program as well, the transportation is also placed within this category. Guidance concerning Coast Guard missions can be found in the Abstract of Operations Reports, COMDTINST 3123.7 (series).

**The Commanding Officers of air stations and vessels with aircraft embarked or deployed have the authority to approve transportation within this category.** The Commanding Officer or operational commander tasking the air station are also given the duty of determining which Coast Guard program the air operation supports. This category does not include travel to give speeches, attend meetings or conferences, or make routine site visits.

If there is a question as to the tangible benefit a flight will offer a program, a program sponsor should be consulted. For example, flights requiring transportation for the purpose of public affairs or community awareness may include guidance by the district public affairs office or Commandant (G-IPA).

In the case of a mission of cooperation with other federal, state, or local agencies, it is the duty of the requesting agency to provide the approving authority with adequate justification for the flight. Individuals transported under this category are considered to be Mission-Essential Personnel.

Authorized transportation of recurring classes of mission-essential personnel include, but are not limited to:

### B.2. Medical Evacuation

Patients and attendants may be transported aboard Coast Guard aircraft in conjunction with a medical evacuation (MEDEVAC) when they have been authorized by a competent medical authority. These individuals may not be transported, however, if either adequate care or a commercial transport service such as an air ambulance is locally available.

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## Section B. Mission Requirements Use, Continued

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### **B.3. Other Personnel**

Personnel belonging to other U.S. Federal, state, and local government agencies may be transported aboard Coast Guard aircraft when both Coast Guard cooperation has been requested by those agencies, and the individuals are in performance of their duties.

---

### **B.4. Officials and Members of Foreign Military Organizations**

Officials and members of foreign military organizations may be transported aboard Coast Guard aircraft when taking part in flights supporting the International Affairs mission, including nation building and SAR organization training.

---

### **B.5. Contractor Engineering and Technical Services Personnel**

Contractor Engineering and Technical Services (CETS) personnel who are employees of commercial concerns under contract to the Coast Guard, and who require air travel as essential to accomplishing a Coast Guard mission, are authorized for transport aboard Coast Guard aircraft.

Civilian employees of commercial concerns under contract, or covered under an approved agreement with the Coast Guard, may also receive transport aboard Coast Guard aircraft when transportation is necessary to support official activities.

CETS includes Contract Field Services personnel, Field Service Representatives, Technical Representatives, and other contractor personnel.

---

### **B.6. Prisoners and Guards**

Prisoners and guards are authorized for transport aboard Coast Guard aircraft during a prisoner transfer.

---

### **B.7. Uniformed Services and Coast Guard Auxiliary Personnel**

Uniformed Services and Coast Guard Auxiliary personnel participating in Coast Guard sanctioned operations, exercises, or training activities are authorized for transport aboard Coast Guard aircraft.

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## Section C. Required Use

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### C.1. Overview

Transportation aboard Coast Guard aircraft may be authorized due to bona fide communications or security needs, or exceptional scheduling requirements of Coast Guard personnel.

Authorization for transportation under the Required Use provision is granted either in the form of a blanket approval or on a trip-by-trip basis. Once Required Use transportation has been approved for the principal, then using Coast Guard aircraft is also appropriate for staff members who are accompanying the official/employee.

---

### C.2. Blanket Approval

The following individuals have blanket approval for official transportation under this category: Commandant, Vice Commandant, Commander Atlantic Area, Commander Pacific Area.

---

### C.3. Trip-by-Trip Approval

For those individuals not under blanket approval, travel must be approved on a trip-by-trip basis as described in DOT Order 6050.1 (series), located in Appendix C.

For Coast Guard members, approval must be granted in writing by Commandant (G-L).

For other members of the Federal Government, their own respective senior legal officials or deputy must approve the travel. This category of travel is of limited applicability and is expected to be used infrequently.

---



## Section D. Other Transportation for the Conduct of Official Business

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### D.1. Overview

Transportation as the primary purpose of flight in this category must be cost justified, or based upon lack of commercial airline or aircraft service (including charter) being reasonably available (i.e., able to meet the traveler's departure and/or arrival requirements within a 24-hour period unless the traveler demonstrates that extraordinary circumstances required a shorter period).

All transportation in this category must be approved in advance and in writing at least one organizational level above the person(s) traveling. For example, travel aboard a Coast Guard aircraft by a district commander wishing to visit a command within the district must first be approved by the respective area commander.

DOT Order 6050.1 (series), located in Appendix C, provides guidance in cost comparisons and approval requirements.

---

### D.2. Aero medical Transportation

Aeromedical Transportation is a recurring mission within this category, as is the transportation of patients under medical supervision as a primary mission.

Aeromedical transportation should not be confused with medical evacuations (MEDEVAC) as described in the Mission Requirements Use category. Patients in this category must be personnel authorized to receive care from the Coast Guard medical system.

Specific eligibility requirements are given in Paragraph D.2.d below.

---

#### D.2.a. As Primary Mission

The transportation of patients as a primary mission requires that cost comparisons be conducted. This cost comparison will be based solely upon those patients who fall within the Space Required category. As such, Space Required patients will have first priority for seating on the aircraft, followed by Aeromedical Space-Available patients. These patients are not required to be accompanied by their sponsor except in the case of children who are too young to travel alone.

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## Section D. Other Transportation for the Conduct of Official Business, Continued

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### D.2.b. Seats Available

Any seats available after the Space Required and Aeromedical Space-Available patients have been boarded may be filled by personnel qualified for travel authorized in the Military Space-Available Program as described in Chapter 6.

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### D.2.c. Attendants

Patients requiring assistance based upon the determination of a competent medical authority may be accompanied by an attendant. The attendant will also be on orders of the competent medical authority.

The attendant will travel under the same priority as the patient.

Recovered patients, returning to their home station, are authorized for transportation aboard Coast Guard aircraft under the same category in which they originally traveled to the medical facility.

---

### D.2.d. Eligibility

- Aeromedical Space Required Patients include:
    - Active duty members of the Coast Guard, Department of Defense, or U.S. Public Health Service attached to the Coast Guard.
    - A dependent of an active duty member of the Coast Guard, Department of Defense, or U.S. Public Health Service attached to the Coast Guard.
    - A member of the U.S. Uniformed Services when the Coast Guard would be reimbursed by the member's agency.
  - Aeromedical Space-Available Patients include:
    - Retired members of the U.S. Coast Guard or Department of Defense;
    - Dependents of retired members or deceased retired members; and
    - Other personnel authorized care from the Coast Guard medical system.
-



## Section E. Space-Available Transportation

---

### E.1. Overview

This category of transportation should not be confused with the Military Space-Available program described in Chapter 6. Transportation within this category should normally be for official purposes only.

In situations where Space-Available Transportation for non-official purposes is contemplated, Section I and DOT Order 6050.1 (series), located in Appendix C, should be consulted.

All space-available transportation for official or authorized purposes must be approved, and when applicable, documented on an official travel authorization (i.e., flight schedule, passenger manifest). Such transportation must be approved at least one organizational level above the person traveling. For example, travel by a district commander must be approved by the respective area commander.

---

### E.2. Minimum Approval Authority Levels

Minimum approval authority levels for transportation of passengers in this category are prescribed below.

---

#### E.2.a. Originating in Washington, DC

When originating from the Washington, DC area, the Vice Commandant shall be the minimum approving authority for members of Coast Guard Headquarters.

In the absence of prior arrangements, approvals originating outside the Coast Guard should be routed through the Commandant (G-OCA) for Coast Guard validation and coordination.

---

#### E.2.b. Originating Outside Washington, DC

When originating outside the Washington, DC area, the area/district commander shall be the minimum approving authority for Coast Guard employees.

In the absence of prior arrangements, approvals originating outside the Coast Guard should be routed through the area/district operations staff for Coast Guard validation and coordination.

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## Section E. Space-Available Transportation, Continued

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### E.3. Recurring Classes of Passengers

The following are recurring classes of passengers that may be authorized for transportation as a secondary purpose of flight. The approval authority rests with the officer listed in parentheses at the end of each group. Reimbursement is not required if the individuals are being transported for official purposes of the Federal Government.

- Persons engaged in Coast Guard disaster relief activities, search and rescue activities, environmental response activities, and/or military operations/exercises - upon request by cognizant DoD, federal, state, local agencies, and/or officially sanctioned welfare or relief organizations. (Commanding Officer)
- Personnel belonging to federal, state, or local agencies participating in missions not in support of a Coast Guard program, but in which Coast Guard support is considered essential to the mission's successful completion. (Area/District Commander)
- Personnel associated with a recognized maritime-oriented civil organization, or Coast Guard sponsored advisory committee, when it is essential, and directly benefits, the Coast Guard or one of its missions. (Area/District Commander)
- Any person requested by, and in cooperation with, a cognizant Federal or State agency when it is considered necessary for the peace, order, or safety of the Nation. (Commanding Officer)
- Representatives of the media, both print and broadcast, if the transportation will provide improved media coverage while serving both the interest of the Coast Guard and the public. Transportation of members of the media representing national or international news and information services should be coordinated in advance with Commandant (G-IPA) and with district (dpa) for local or regional representatives. When space limitations preclude transporting all interested media personnel, the Public Affairs Manual, COMDTINST M5728.2 (series), should be consulted. (Commanding Officer)

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## Section E. Space-Available Transportation, Continued

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### E.3. Recurring Classes of Passengers (cont'd)

- Foreign nationals representing their governments while participating in exercises which offer an operational advantage to all parties. These flights shall be conducted for the sole purpose of combined operations/exercises, or familiarization/professional exchanges with the intent to develop maritime capabilities. Flights shall be in support of Commandant (G-IIA) approved International Affairs initiatives, including Nation Building. This may also include transportation if it is for necessary diplomatic or public relations purposes, and is deemed in the best interest of the Coast Guard and/or the Federal Government. (Area/District Commander, with concurrence of Commandant (G-IIA))
  - In polar regions, foreign nationals sponsored either by:
    - The Office of Polar Programs, National Science Foundation (NSF);
    - Commander, Naval Support Forces, Antarctic (CNSFA); or
    - The program head of the agency chartering the vessel/aircraft (Commanding Officer).
-



## **Section F. Transportation of Senior Federal Officials, Senior Executive Branch Officials, DOT Senior Level Officials and Non-Federal Travelers**

---

### **F.1. Overview**

Transportation of individuals falling within this category must undergo a separate approval process described in Appendix C.

---

### **F.2. Reporting Requirements**

Coast Guard Air Stations (CGASs) transporting such individuals must report their travel using GSA Form 3641, included in Appendix C. The report is currently a monthly requirement and is due to Commandant (G-OCA) no later than the seventh day of the month following the reporting period. Negative reports are required via message or electronic mail. For this report, transportation does not include flights for Orientation, Familiarization, Congressional Travel, travel required for the support of the President or Vice President, or travel under the provisions of the USCG Military Space-Available Travel Program. Transportation shall be reported for only the following two groups of passengers:

---

#### **F.2.a. Group 1**

Report all non-mission requirements use transportation, whether it is the primary or secondary purpose of flight, for:

- Senior Federal Officials (SFO), including Coast Guard officers serving in the pay grades of O-9 or O-10;
  - Members of their families; and,
  - Non-Federal personnel, whether traveling at the invitation of the senior official(s) or not.
- 

#### **F.2.b. Group 2**

Report all transportation, both mission and non-mission requirements use, whether it is the primary or secondary purpose of flight, for:

- Senior Executive Branch Officials (SEBO);
  - Members of their families; and,
  - Non-Federal personnel traveling at the invitation of the senior official(s).
-



## **Section G. Transportation of Family Members of Senior Level Officials and Senior Executive Branch Officials as Official Travel**

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### **G.1. Overview**

Transportation of senior DOT Official family members is discussed in DOT Order 6050.1 (series), located in Appendix C.

---

### **G.2. Travel of Spouses of Coast Guard Senior Level Officials (Including Officers in Paygrade O-9 and O-10)**

Travel must be supported with invitational travel orders (ITO). These will normally authorize transportation costs reimbursement only, not to include per diem expenses in accordance with the Commandant Instruction on Invitational Travel, COMDTINST 12570.3 (series).

ITOs designate the spouse as an official traveler and are issued only when a benefit to the national interest has been clearly demonstrated. As such, their transportation aboard Coast Guard aircraft is authorized in conjunction with their sponsor who has already received approval for transportation.

Family members with ITOs generally travel as official passengers on a space-available basis.

---

### **G.3. Approval**

Approval must be in writing from the Chief Counsel, Commandant (G-L). For a member from another agency, the senior legal official of that agency must provide approval.

In the absence of standard arrangements, legal approvals originating outside the Coast Guard should be routed through Commandant (G-OCA) for Coast Guard validation and coordination.

In emergency situations, an after-the-fact written approval by the above appropriate legal official is permitted.

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## Section H. Congressional Transportation on Coast Guard Aircraft

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### H.1. Overview

Coast Guard aircraft may be used for the transportation of Congressional travelers when such usage is in the best interest of the Federal Government (approval by the DOT Assistant Secretary for Governmental Affairs).

---

### H.2. Routine Requests

Requests for travel aboard Coast Guard aircraft by members of Congress, their staffs, their spouses and/or dependents, regardless of the primary purpose of the flight, shall be submitted upon receipt to Commandant (G-ICA) via the most expeditious means available. Commandant (G-ICA) will review requests and then forward them to the Executive Assistant to the Commandant (G-C-10) for endorsement.

In those instances where Congressional personnel contact an Air Station directly to request a flight, Commandant (G-ICA) will require the following information to process the request: date request received, originator of the request, date/location of flight, type of aircraft to be used, name and titles of personnel participating, purpose of the flight, flight plan, principal USCG units/personnel involved, USCG personnel escorting delegation, benefit to the USCG and Federal government, impact of denial, POC for Air Station and Congressional Staff.

Once endorsed, requests will be sent for approval to the DOT Assistant Secretary for Governmental Affairs.

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### H.3. Non-Routine Requests

In situations where the standard approval procedures are not practical due to time constraints, the area/district commanders, Commandant (G-O) for AR&SC and ATC Mobile, may approve congressional travel. In many cases, this will occur when requests are issued outside normal business hours and require a prompt response.

Upon processing any such requests, the area/district commander shall notify the Coast Guard Headquarters Command Center (G-OFP) as soon as possible. The cognizant area/district commander shall also report cost and justification data in a letter to Commandant (G-CC). This report will then be forwarded as soon as possible to the DOT Assistant Secretary for Governmental Affairs for an after-the-fact written approval.

---



## Section I. Transportation of All Other Non-Official Passengers

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### I.1. Overview

Transportation of non-official passengers is not normally authorized. In special circumstances, however, non-official passengers may be transported if their travel is determined to be desirable and unquestionably in the best interest of the Federal Government.

In situations where the request is forwarded to a higher authority, all pertinent details shall be provided with the request sufficiently in advance to enable a timely review and decision. Amplifying information should include:

- Cost comparison details,
- Whether travel will be for primary or secondary purpose of flight,
- Reimbursement considerations,
- Aircraft type involved,
- Description of the purpose of travel,
- Benefit to the interest of the Federal Government, and
- Assessment of the impact of denial.

All such requests shall be considered on a case-by-case basis. Examples of such requests include:

---

### I.2. Commercial Producers of Features, Short Subject Films, or Television Series

Commercial producers of features, short subject films, or television series may request participation of Coast Guard aircraft, and/or transportation of personnel. The Public Affairs Manual, COMDTINST M5728.2 (series), requires such requests be referred to Commandant (G-IPA) or the Public Affairs Liaison Office (Hollywood) for approval.

Once that approval has been received, the use of Coast Guard facilities and transportation of passengers may then be approved by the commanding officer. Personnel will be considered in the same category as media representatives listed in Paragraph E.3 above.

---

### I.3. Requesting Approval

The transportation of non-official passengers as the primary purpose of flight is not normally authorized. However, requests for such transportation, if deemed a benefit to the government, shall be sent via the chain of command to Commandant (G-OCA) for review.

The requests will then be forwarded to the Vice Commandant for approval. Reimbursement is required.

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## Section I. Transportation of All Other Non-Official Passengers, Continued

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- I.4. Other Purposes** Other purposes include any transportation not previously specified or exempt that involves spouses, dependents, or other non-official travelers, regardless of whether transportation is the primary or secondary purpose of the flight. Although not normally authorized, requests for such transportation, if deemed desirable, shall be sent via the chain of command to Commandant (G-OCA) for review and then forwarded to the Vice Commandant for approval.
-



## Section J. Transportation of Cargo

---

### J.1. Overview

Each use of Coast Guard aircraft to transport cargo must be justified, documented, and approved in accordance with this chapter.

Commercial airlines or services, including charters, shall be relied upon to the maximum extent practicable. The use of these external services however, must economically and effectively meet the cargo transportation requirements.

Coast Guard aircraft may be used to transport cargo when these external services are unable to do so.

### J.2. Mission-Essential Cargo

Mission-essential cargo is cargo transported on the aircraft in direct support of Mission Requirements Use. Carrying of mission-essential cargo is not considered transportation; it is considered operational use of the aircraft.

Coast Guard aircraft may be used for the primary or secondary purpose of transportation of cargo in support of emergencies and/or disasters.

### J.3. Transportation of Non-Mission-Essential Cargo as the Primary Purpose of Flight

Coast Guard aircraft may be used for the transportation of non-mission-essential cargo as the primary purpose of flight whenever the variable cost of using a Coast Guard aircraft is not greater than the cost of using commercial airlines or aircraft services, including charters.

Coast Guard aircraft may also be used when it is not cost effective if the commercial airlines or aircraft services are not reasonably available.

Justification shall be provided with the CG-4377, Aircraft Flight Record-Part II.

In no event shall cargo transportation be the basis for establishing primary mission requirements nor shall minimum mission requirements be exceeded because of the cargo.

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## Section J. Transportation of Cargo, Continued

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### **J.4. Transportation of Cargo as the Secondary Purpose of Flight**

Coast Guard aircraft may be used for the transportation of cargo as the secondary purpose of flight whenever the aircraft is being used primarily for some other bona fide mission or training requirement.

In all instances, such use must be in the best interest of the Federal Government and must not interfere with the performance of the primary purpose of the flight.

In no event shall cargo transportation be the basis for establishing primary mission requirements nor shall minimum mission requirements be exceeded because of the cargo.

---

### **J.5. Privately Owned Vehicles**

The transportation of privately owned/leased vehicles, including automobiles, motorcycles and boats, is prohibited.

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### **J.6. Cargo Inspection and Hazardous Cargo Handling and Regulation**

Cargo may be inspected, regulated, or prohibited for safety-of-flight reasons by commanding officers of aviation units or by pilots in command of flights. AFJMAN 24-204, Preparing Hazardous Materials for Military Air Shipment, shall apply to all cargo carried in Coast Guard aircraft, including mission-essential cargo. Requests for waivers to deviate from this guidance shall be submitted in writing to Commandant (G-OCA).

Once the potential for risk versus the gain has been considered, area/district commanders having operational control (OPCON) of aircraft are delegated the authority to invoke the provisions of Chapter 3 of AFJMAN 24-204 as necessary to meet unplanned response requirements.

If possible, it is recommended that all mission-essential cargo of questionable or unknown origin, or not adequately provided for in AFJMAN 24-204, be shrink wrapped as a precaution against contamination of both the aircraft and crew.

Shrink wrapping does not relieve crews from complying with the provisions of AFJMAN 24-204.

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### **NOTE**

Flammable materials such as diesel fuel may be transported without a waiver for contingency operations if DOT-approved containers are used. Otherwise, the operational commander of the aircraft must approve the transport under contingency operations as discussed above.

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## Section J. Transportation of Cargo, Continued

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### **J.7. Cost Comparisons**

A cost comparison for the transportation of cargo is not required when Coast Guard aircraft are used in accordance with Mission Requirement Use criteria. Cost comparisons are unnecessary as well when cargo is transported as a secondary purpose of flight in conjunction with a bona fide primary purpose of flight.

A cost comparison is required when cargo is to be transported as a primary purpose of flight for other than Mission Requirement Use purposes.

Reimbursement, if required, shall be in accordance with DOT Order 6050.1 (series), located in Appendix C.

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## **CHAPTER 6: MILITARY SPACE-AVAILABLE TRAVEL**

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## Chapter 6. Military Space-Available Travel

### Overview

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#### Introduction

This chapter provides guidance on Military Space-Available Travel.

---

#### In this chapter

This chapter is divided into four sections:

- USCG Military Space-Available Travel Program
  - General Guidelines
  - Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments
  - Environmental and Morale Leave Program
-



## **Section A. USCG Military Space-Available Travel Program**

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### **A.1. Overview**

Title 10 USC § 4744 authorizes a Military Space-Available Travel Program. This regulation governs the program on Coast Guard aircraft.

The USCG Military Space-Available Travel Program covers routine military space-available travel and the Environmental and Morale Leave (EML) Program. Commanding officers of Coast Guard air units are authorized to approve and carry space-available passengers in Coast Guard aircraft in accordance with the priority categories and conditions prescribed in this section.

For passenger transportation for other than the recurring classes of passengers eligible for space-available transportation that are listed below, requests shall be sent via the chain of command to Commandant (G-OCA) for review and forwarding to the Vice Commandant on a case-by-case basis for approval.

---



## Section B. General Guidelines

### B.1. Eligibility

Military space-available travel is limited to active duty and retired U.S. Uniformed Services personnel and their dependents; U.S. Uniformed Service reserve personnel; foreign military personnel on exchange duty with U.S. military components and their dependents; American Red Cross personnel assigned to U.S. military installations overseas; and U.S. citizen civilian employees of the Coast Guard, DOT, or DoD, stationed overseas only in those specific circumstances listed below.

Space-available travel is a privilege (not an entitlement) that accrues to Uniformed Services members as an avenue of respite from the rigors of Uniformed Services duty. Retired Uniformed Services members are given the privilege in recognition of a career of such rigorous duty and because they are eligible for recall to active duty. The underlying criteria for extending the privilege to other categories of passengers is their support to the mission being performed by Uniformed Services members and to the enhancement of active duty Service Members' quality of life.

### B.2. Type of Travel

**Transportation under this program is for non-official travel, as a secondary purpose of flight.**

### B.3. Cost and Reimbursement

Cost comparison and reimbursement is not required, unless otherwise specified herein.

### B.4. Dependents

Dependents are not eligible for military space-available flights within CONUS except where specifically authorized in this chapter.

### EXCEPTION

All individuals otherwise eligible for military space-available transportation will be allowed to travel on aircraft to/from an overseas location when a CONUS leg segment (en route stop) is involved. For example, dependents may travel on a mission which operates from Kodiak to Elizabeth City even though an en route stop is made in Sacramento. Similarly, dependents may travel on a mission which operates from Elizabeth City to Borinquen even though an en route stop is made in Miami.

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## Section B. General Guidelines, Continued

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### B.5. Aircraft

Only multi-engine Coast Guard aircraft may carry military space-available passengers, and if carrying dependents, such aircraft shall be appropriately equipped to accommodate their needs.

---

### B.6. Affecting Mission

Military space-available transportation must not alter the schedule of the flight or the basic mission. In no event will military space-available transportation serve as the basis for establishing mission requirements.

---

### B.7. Required Documentation

Active duty military members on ordinary leave are required to have a valid leave authorization as prescribed by their Service and a military ID card.

Retired military personnel are required to present DD Form 2 (Blue or Gray).

Bona fide dependents accompanying eligible active duty and retired members need present only their DD-1173, Uniformed Services Identification and Privilege Card, if issued.

Active duty military members in a liberty status without orders may travel on Coast Guard aircraft upon presentation of a DD Form 2 (Green), Armed Forces Identification Card, and necessary border clearance documentation when required.

Personnel holding the Congressional Medal of Honor need to present a Medal of Honor Identification and Travel Card.

All other individuals must present travel orders or a transportation authorization for which an authenticating officer has authorized the travel.

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### B.8. Passenger Registration

Military space-available passenger registers shall be maintained to those destination/en route points served by scheduled logistics flights. Registered passengers must be in a leave status and available to travel. Passengers who fail to accept a seat or who are not available to accept a seat when it is offered to any of their registered destinations on a flight whose scheduled departure has been posted for 24 hours will have their names removed from the register. Anyone whose name is removed may re-register, but will be placed at the bottom of the appropriate category on the register.

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*Continued on next page*





## Section B. General Guidelines, Continued

### **B.9. Prioritization and Availability**

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Eligible personnel are listed within each priority group of a category in no particular order and will be furnished space-available transportation on a first-in, first-out basis within each priority group.

All personnel in a higher priority group of a category will be offered transportation before anyone in a lower priority group of the same category is offered transportation.

The air station commanding officer may change the precedence for emergency or extreme humanitarian reasons, when requested by the sponsoring military Service and the facts provided fully support such exception.

Reservations will not be made for any category of space-available passenger; however, air stations may maintain a roster of applicants as a means of identifying such passengers.

There is no guaranteed space for military space-available passengers, nor is the Coast Guard obligated to continue an individual's travel or return him/her to his/her point of origin.

Eligible personnel must be physically capable of caring for themselves while enplaning, deplaning, and in flight.

An exception to this is permitted when a disabled individual is accompanied by a sponsor or dependent who is also eligible for military space-available transportation and who can provide the assistance required.

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## Section B. General Guidelines, Continued

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### **B.10. Space-Available Travel in Conjunction with Space-Required Travel or to Restricted Tour Areas**

Space-available travel may not be used instead of space-required travel for such movement as TDY, TAD, or PCS travel. Space-available travel may be used in conjunction with space-required travel as long as space-available travel does not substitute for any single leg for which the traveler has a space-required entitlement. For example, a Uniformed Services member may take leave with a TDY or TAD, as allowed by Service regulations, and may travel space-available while on leave. Travel from the Primary Duty Station (PDS) to the TDY or TAD location shall be space-required with the traveler in a duty status; any space-available travel from the TDY or TAD duty location shall return to the TDY or TAD location, with the traveler in a leave status; and the final leg shall be space-required from the TDY or TAD location to the PDS with the traveler in a duty status. Dependents may not use space-available travel options in this regulation to accompany their sponsor on space-required travel or to travel from a sponsor's restricted or any other unaccompanied tour location.

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## Section C. Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments

### C.1. Overview

Table 6-1 below is based on DoD 4515.13R, Chapter 6, Space-Available Travel. This table lists travelers who are eligible to travel on DoD aircraft according to the space-available program outlined in the following paragraphs. “Traveler’s Status and Situation” lists specific travelers and conditions under which space-available travel may be authorized.

The approved geographical travel segments, i.e., origin and destination combinations, are C-C (CONUS to CONUS), O-O (overseas to overseas), C-O (CONUS to overseas) and O-C (overseas to CONUS) (reference section A.8.).

A “yes” in the column headed by one of these abbreviations indicates that travel is authorized in that particular geographical travel segment for the particular type traveler cited in that item number, and subject to any limitations cited.

Lack of a “yes” indicates travel is not authorized in that particular geographical travel segment.

**Table 6-1**

Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments				
Reference Number	Traveler’s Status and Situation	C-C	O-O	C-O and O-C
<b>Category 1</b> <b>Emergency Leave Unfunded Travel</b> Transportation by the most expeditious routing only for bona fide immediate family emergencies, as determined by DoD Directive 1327.5 (reference (d)) and Service regulations, for the following travelers:				
1.1	Uniformed Services members with emergency status indicated in leave orders	Yes		
1.2	Civilians, U.S. citizens, stationed overseas, employees of: (1) The Uniformed Services; or (2) NAF activities and whose travel from the CONUS, Alaska, or Hawaii was incident to a PCS assignment at NAF expense		Yes	Yes
1.3	Dependents of members of the Uniformed Services when accompanied by their sponsor	Yes		
1.4	Dependents, accompanied or unaccompanied, of members of the Uniformed Services who are assigned and domiciled in the CONUS.			Yes

*Continued on next page*



## Section C. Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments, Continued

Table 6-1 (Cont'd)

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
1.5	Dependents of members of the Uniformed Services, noncommand sponsored, residing overseas with the sponsor, one-way only to emergency destination		Yes	C-O No  O-C Yes
1.6	Dependents, command sponsored, of: (1) U.S. citizen civilian employees of the Uniformed Services stationed overseas; (2) U.S. citizen civilian employees of the DoD stationed overseas and paid from NAF; or (3) American Red Cross full-time, paid personnel, serving with a DoD Component overseas		Yes	Yes
1.7	Professional Scout Leaders, and American Red Cross full-time, paid personnel, serving with a DoD Component overseas		Yes	Yes
1.8	Dependents of retired Uniformed Services members who die overseas. Travel is authorized for the purpose of accompanying the remains of the deceased retired member from overseas to the CONUS. Return travel is authorized if accomplished within one year of arrival in the CONUS. Documentation certified by DoD mortuary affairs personnel shall be presented to air terminal personnel, and shall be in the dependents' possession during travel.			Yes
<b>Category 2</b> <b>Environmental and Morale Leave (EML)</b> EML leave is granted with an EML program, as prescribed in DoD Directive 1327.5 (reference (d)), established at an overseas installation where adverse environmental conditions require special arrangements for leave in more desirable places at periodic intervals. Except as noted, unfunded EML travel is subject to the space-available program rules and guidance outlined in DoD 4515-13R, Chapter 6, Section A. Funded EML travel is discussed in DoD 4515-13R, Sections B.1.e.B.3.a.(14). Unfunded EML travelers may travel in Category II status to only one EML destination for each set of EML orders. This does not preclude several approved EML destinations being included in a single set of EML orders as long as procedures are in effect to ensure that the individual is provided Category II status only for travel to and from the first authorized EML destination actually reached. Subsequent space-available travel, e.g., from the EML destination to a third location and return, or from the third location to another EML location, may only be provided in Category III status. When traveling under EML orders, dependents who are 18 years of age or older may travel unaccompanied by their sponsor. Dependents who are under 18-years of age traveling under EML orders must be accompanied by an EML eligible parent or legal guardian who is traveling in an EML status.				
2.1	Sponsors in an EML status and their dependents traveling with them, also in an EML status. "Sponsors" includes: (1) Uniformed Services members. (2) U.S. citizen civilian employees of the Armed Forces who are eligible for Government-funded transportation to the United States at tour completion (including NAF employees). (3) American Red Cross full-time, paid personnel on duty with a DoD Component overseas. (4) USO professional staff personnel on duty with the Uniformed Services. (5) DoDDS teachers during the school year and for Employer-approved training during recess periods.		Yes	Yes
<b>Category 3</b> <b>Ordinary Leave, Close Blood or Affinitive Relatives, House Hunting Permissive TDY/TAD, Medal of Honor Holders, Foreign Military, and Others</b>				
3.1	Uniformed Services members in a leave or pass status other than emergency leave (use Category I), environmental and morale leave (use category II), or excess appellate leave, for which space-available travel is not authorized. This includes members of the Reserve components on active duty, in a leave or pass status.	Yes	Yes	Yes

Continued on next page



## Section C. Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments, Continued

Table 6-1 (Cont'd)

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
3.2	Dependents of a member of the Uniformed Services when accompanied by their sponsor in a leave status other than emergency leave (use Category I), environmental and morale leave (use Category II), or excess appellate leave, for which space-available travel is not authorized.		Yes	Yes
3.3	Close blood or affinitive relatives who are permanent members of the household and dependent upon a Military Service member, a DoD civilian employee, or American Red Cross employee serving with a DoD Component overseas, when the sponsor is authorized transportation of dependents at Government expense. Travel must be with the sponsor's or his or her dependent's PCS move.		Yes	Yes
3.4	Dependent spouses of military personnel officially reported in a missing status under 37 USC 551, and accompanying dependent children and parents, when traveling for humanitarian reasons and on approval on a case-by-case basis by the Head of the Service concerned (Chief of Staff of the Army, the Chief of Naval Operations, the Commandant of the Coast Guard, the Chief of Staff of the Air Force, and the Commandant of the Marine Corps) or their designated representative. Travelers shall present an approval document from the Service concerned.	Yes	Yes	Yes
3.5	Uniformed Services members traveling under permissive TDY/TAD orders for house hunting incident to a pending PCS.	Yes	Yes	Yes
3.6	One dependent when accompanying a Uniformed Services members traveling under permissive TDY/TAD orders for house hunting incident to a pending PCS.	Yes	Yes	Yes
3.7	Medal of Honor recipients. Except for active duty, traveler shall present a copy of the Medal of Honor award certificate.	Yes	Yes	Yes
3.8	Dependents of Medal of Honor recipients when accompanied by their sponsor.		Yes	Yes
3.9	Command sponsored dependents of Uniformed Services members accompanying their sponsor on approved circuitous travel. Commanders authorized to publish circuitous travel orders for members under current policy of their Uniformed Service, where extenuating circumstances prevail, may approve requests for space-available travel of their dependents within and between overseas areas and the CONUS, incident to approved circuitous travel of the member.		Yes	Yes
3.10	Foreign cadets and midshipmen attending U.S. Service academies, in a leave status. Native countries of foreign cadets and midshipmen must be identified in the leave authorization.			Yes
3.11	Civilian U.S. Armed Forces patients who have recovered after treatment in medical facilities and their accompanying nonmedical attendants. Travel is permitted by the most expeditious routing to return the recovered patient and nonmedical attendant to the overseas post of assignment. (During the death or extended hospitalization of the patient, the nonmedical attendant retains the space-available travel authority to return to the patient's overseas post of assignment.		Yes	C-O Yes O-C No
3.12	Foreign exchange Service members on permanent duty with the Department of Defense, when in a leave status.	Yes	Yes	Yes
3.13	Dependents of foreign exchange Service members on permanent duty with the Department of Defense when accompanying their sponsor.		Yes	Yes

Continued on next page



## Section C. Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments, Continued

Table 6-1 (Cont'd)

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
<b>Category 4</b> <i>Unaccompanied Dependents on EML and DoDDS Teachers on EML During Summer</i>				
4.1	Dependents traveling under the EML Program, unaccompanied by their sponsor, traveling under subsection B.4.c., above ("Sponsor" as defined in item 10, above)		Yes	Yes
4.2	DoDDS teachers or dependents (accompanied or unaccompanied) traveling under the EML Program during the summer break.		Yes	Yes
<b>Category 5</b> <i>Permissive TDY (Nonhouse Hunting), Foreign Military, Students, Dependents, and Others</i>				
5.1	Military personnel traveling on permissive TDY/TAD orders other than for house hunting.	Yes	Yes	Yes
5.2	Dependents (children) who are college students attending in residence an overseas branch of an American (U.S.) university located in the same overseas area in which they reside, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee of the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted from the overseas military passenger terminal nearest their sponsor's permanent duty station to the overseas military passenger terminal nearest the university, and to return during school breaks. Students must present written authorization from an approving authority and only one round trip each year is authorized. Unused trips may not be accumulated from school year to school year.		Yes	
5.3	Dependents, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee of the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted to and from the nearest overseas military academy testing site to take scheduled entrance examinations for entry into any of the U.S. Service academies.		Yes	
5.4	Dependents of active duty U.S. military personnel stationed overseas who, at the time of PCS, were not entitled to transportation at Government expense. Travel is to accompany or join their sponsor at his or her duty station. Travel may be unaccompanied and is limited to travel from the APOE in the CONUS, Alaska, or Hawaii to the overseas APOD serving the sponsor's duty station. Before travel, approval of the overseas major commander is required.			C-O Yes O-C No
5.5	Noncommand sponsored dependents, acquired in an overseas area during a military member's current tour of assigned duty, not otherwise entitled to transportation at Government expense. Travel must be with the member's PCS, may be unaccompanied, and is limited to travel from the overseas APOE to the APOD in the CONUS, Alaska, or Hawaii. Member's PCS orders are required for travel. Command regulations pertaining to the acquisition of dependents must have been followed.			C-O No O-C Yes

Continued on next page



## Section C. Eligible Space-Available Travelers, Priorities, and Approved Geographical Travel Segments, Continued

Table 6-1 (Cont'd)

Reference Number	Traveler's Status and Situation	C-C	O-O	C-O and O-C
5.6	Unaccompanied spouses of Uniformed Services members stationed in overseas areas in response to written requests from school officials or when deemed essential, authorized, and directed in writing by the sponsor's commander for personal consultation on matters about the needs of family members attending school at an overseas location away from the Uniformed Service member's PDS		Yes	
5.7	Command-sponsored dependents of Uniformed Services members, accompanied or unaccompanied, who are stationed overseas. Travel restrictions may apply to certain overseas destinations as determined by the appropriate unified commander. Documentation signed by the sponsor's commander verifying command sponsorship shall be presented to air terminal personnel, and shall be in the dependents' possession during travel. This documentation is valid for one round trip from sponsor's PCS duty location. Dependents under 18-years of age must be accompanied by an eligible parent or legal guardian		Yes	Yes
<b>Category 6</b> <b>Retired, Dependents, Reserve, ROTC, NUPOC, and CEC</b>				
6.1	Retired Uniformed Services members.	Yes	Yes	Yes
6.2	Dependents of retired Uniformed Services members, when accompanying their sponsor.		Yes	Yes
6.3	Dependents, command sponsored, stationed overseas with their sponsor who is: (1) A member of the Uniformed Services; (2) A U.S. citizen civilian employee or the Department of Defense (paid from either appropriated funds or NAF); or (3) An American Red Cross full-time, paid employee serving with the Department of Defense. Unaccompanied travel is permitted to the U.S. for enlisting in one of the Armed Forces when local enlistment in the overseas area is not authorized. If an applicant for Military Service is rejected, return travel to the overseas area may be provided under this eligibility.		Yes	Yes
6.4	Authorized Reserve component members and authorized Reserve component members entitled to retired pay at age 60, traveling in the CONUS and directly between the CONUS and Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, and American Samoa (Guam and American Samoa travelers may transit Hawaii or Alaska); or traveling within Alaska, Hawaii, Puerto Rico or the U.S. Virgin Islands.	Yes		
6.5	NUPOC, CEC, and ROTC students of the Army, Navy or Air Force receiving financial assistance or enrolled in advanced training, in uniform, during authorized absences from the school. Travel is authorized within and between the CONUS, Alaska, Hawaii, and the U.S. territories.	Yes		
6.6	Newly commissioned ROTC officers who are awaiting call to extended active duty. Travel is authorized within and between the CONUS, Alaska, Hawaii, and the U.S. territories	Yes		



## Section D. Environmental and Morale Leave Program

### Overview

District commanders are authorized to establish Environmental and Morale Leave (EML) programs subject to approval by Commandant (G-O). Whenever such EML programs encompass travel via Coast Guard aircraft, the provisions of this section are applicable and prior approval of the district's governing instruction and any changes to that instruction by Commandant (G-O) are required.

EML participants are authorized to travel on a space-available basis (Category II, Priority 2; Category IV, Priority 2) aboard those Coast Guard aircraft that meet the criteria for carrying space-available passengers.

Travel may be to any location served by Coast Guard aircraft. However, travel within CONUS under an EML program is prohibited.

### D.1. Policy

#### D.1.a. Annual Leave

Annual leave programs are conducted to provide periods of respite from the working environment to enhance performance, motivation, and morale.

Where adverse environmental conditions exist which would offset the full benefit or ordinary leave programs, supplemental programs are necessary. Therefore, military personnel and/or their dependents who are stationed at designated overseas activities may be provided air transportation privileges on a space-available basis for purposes of taking ordinary leave in a more desirable location.

#### D.1.b. Travel Opportunities

Travel opportunities will be afforded on an equitable basis to officer and enlisted personnel and their accompanying dependents without regard to rank, grade, or branch of Service.

#### D.1.c. CG Aircraft

Coast Guard aircraft will not be scheduled primarily for this program, and the privilege extended by the provisions of this section must not result in more than minor additional cost in funds for flying hours to the government.

#### D.1.d. Restrictions

Participants are restricted to two trips per year.

*Continued on next page*





## Section D. Environmental and Moral Leave Program, Continued

D.1.e. Status	Military members must be in a leave status.
D.1.f. Other Restrictions	Theater or international restrictions shall be complied with.
D.1.g. Travel Documentation	All directives and requirements pertaining to passports, visas, foreign customs, and immunizations shall be complied with.
D.1.h. Funding	Participants shall have sufficient personal funds available to defray the cost of the return trip to home base via commercial transportation if space-available transportation cannot be provided.
D.1.i. Baggage	Participants shall not exceed the maximum baggage allowance of 66 pounds per passenger. Excess baggage will not be accepted. Pets are not authorized.
<b>D.2. Designated Overseas Areas</b>	EML travel is limited to those eligible personnel stationed in the following geographical areas:
D.2.a. Alaska	All of Alaska except for the immediate vicinity of Anchorage.
D.2.b. Pacific	American Samoa, Guam, Japan, Iwo Jima, Marcus Island, Johnston Island, Wake, Saipan, Yap, Midway, Kure, Manila, and Okinawa.
D.2.c. Atlantic	Guantanamo Bay, Cuba, and all locations within the defined limits of the Greater Antilles Section.
<b>D.3. Authorized Personnel</b>	Personnel in the following groups are eligible for EML travel. All personnel will be governed by a single directive issued by the district commander responsible for the geographical area:
D.3.a.	All active duty Uniformed Services personnel, without regard to grade, accompanied or unaccompanied.

*Continued on next page*



## Section D. Environmental and Moral Leave Program, Continued

D.3.b.	Accompanied or unaccompanied, command-sponsored dependents of active duty members. Dependents under age 13 traveling under this provision must be accompanied by a parent or guardian.
D.3.c.	Full-time paid personnel of the American Red Cross serving with the U.S. Armed Forces at a designated overseas activity.
D.3.d.	U.S. citizen civilian employees of the Coast Guard, DOT or DoD stationed overseas
<b>D.4. Administrative Control</b>	District commanders shall ensure that the administrative controls permit all eligible military personnel and dependents to participate.



## **CHAPTER 7: LIFE SUPPORT EQUIPMENT AND SURVIVAL SYSTEMS**

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# Chapter 7. Life Support Equipment and Survival Systems

## Overview

### Introduction

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Adequate life support equipment and survival systems are required to allow Coast Guard aviation to meet its many operational commitments in a wide variety of environmental conditions. This chapter provides guidance for use of personal life support equipment and survival systems and supplements the Aviation Life Support Systems Manual, COMDTINST M13520.1 (series).

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### In this chapter

This chapter is divided into five sections:

- Protective Clothing
  - Flotation Equipment
  - Oxygen
  - Safety Devices
  - Minimum Rescue/Survival Equipment
-



## Section A. Protective Clothing

### A.1. Overview

Use of equipment other than the items specified in the Aviation Life Support Systems Manual, COMDTINST M13520.1 (series), is prohibited unless specifically authorized by Commandant (G-OCA).

Commanding officers shall submit suggestions for new equipment or improvements to Commandant (G-OCA).

### A.2. Flight Clothing Modification and Maintenance

Policies and instructions pertaining to the modification, maintenance, configuration, application, function, and inspection of rescue and survival equipment are contained in the Aviation Life Support Systems Manual, COMDTINST M13520.1 (series).

### A.3. Flight Clothing

All crewmembers in Coast Guard aircraft, including those serving with the Coast Guard on exchange, shall use protective clothing as follows:

#### A.3.a. Flight Suits and Boots

Aircrew personnel shall wear fire-retardant flight suits or anti-exposure coveralls and flight boots when engaged in all ground and in-flight operations. To provide maximum fire protection, sleeves shall not be rolled up.

Mission-essential personnel and passengers should wear fire retardant flight suits for operational, non-transport missions.

### EXCEPTION

Rescue swimmers (RSs) may wear the required water ensemble during flight. Water ensembles are not specifically designed for flame resistance and can cause heat stress to the RS.

Aircraft commanders must consider the risks of performance degradation and lack of flame protection versus practicality when permitting the RS to wear a water ensemble for periods longer than 30 minutes.

### EXCEPTION

Because of the limited nature of their operations, VC-4A and C-20A flight crewmembers are not required to wear protective flight clothing during flight operations.

*Continued on next page*



## Section A. Protective Clothing, Continued

A.3.b. Flight Gloves	<p>Rotary-wing (R/W) flight crews shall wear gloves when engaged in all ground and flight operations.</p> <p>Multi-engine fixed-wing (ME/F/W) flight crews shall wear gloves during all ground operations, takeoffs, and landings.</p> <p>Mission-essential personnel and passengers should wear fire retardant flight gloves for operational, non-transport missions.</p>
A.3.c. Flight Helmets	<p>For R/W aircraft, aircrewmembers within close proximity to a turning rotor system, including persons being hoisted, shall wear a helmet. The eye protecting visor shall be used to the maximum extent.</p> <p>Rescue swimmers shall wear a helmet during deployment. However, rescue swimmers are exempt from this requirement during deployment to, and recovery from, the water.</p> <p>Aircrewmembers and mission-essential personnel are exempt from this requirement when administering medical attention.</p> <p>Mission-essential personnel and passengers on R/W aircraft engaged in operational, non-transport missions should be provided a flight helmet or the HGU-25/P helmet assembly as cranial protection. Wearing helmets is optional for aircrewmembers, mission-essential personnel, and passengers aboard F/W aircraft; however, C-130 Dropmasters (DMs) and personnel assisting in drops must wear helmets during drop operations.</p>
A.3.d. Anti-Exposure Garments	<p>Anti-exposure garments shall be worn by each aircraft occupant (except survivors/patients embarked during search and rescue (SAR)) during all R/W operations beyond autorotative distance from land as determined by Table 7-1.</p> <p>Only authorized anti-exposure garments shall be worn by aircrewmembers. Other anti-exposure garments may be worn by mission-essential personnel and passengers; for example, MAC-10, Mustang, etc.</p>

*Continued on next page*



## Section A. Protective Clothing, Continued

A.3.d.(2) Deviations Commanding officers may authorize deviation from the requirements of the anti-exposure garment tables of this chapter on a case-by-case basis, after a determination that the risks associated with crew performance degradation, thermal stress, and environmental considerations are offset by the benefits associated with the deviation.

Blanket deviation is not authorized. If a flight crewmember's frame size and body fat percentage cause heat tolerance and performance degradation problems when complying with these tables, the commanding officer may request a waiver from Commandant (G-OCA).

A.3.d.(3) Authorized  
Anti-Exposure  
Garments

A.3.d.(3)(a) Aircrew Dry Coverall (ADC) An ADC is a gortex/nomex full dry suit worn in place of flight suit. It includes 4 levels of undergarments, wet suit mitts, and hood or surf cap. Hood and mitts shall be carried in the suit at all times.

A.3.d.(3)(b) Survival Suit A survival suit is a closed-cell, foam-insulated dry immersion suit which may be carried in the aircraft for post-egress wear. Although ME/F/W crews may wear this suit during flight, RW aircraft crews are prohibited from wearing it because of the hazard involved in an inverted egress.

**Table 7-1**

Water Temp (W)		Air Temp (A)	Garment
70° F ≤ W	and	Any	Flight Suit
60° F ≤ W < 70° F	and	85° F ≤ A	Flight Suit
60° F ≤ W < 70° F	and	A < 85° F	ADC
W < 60° F	and	Any	ADC

A.3.e. Underwear  
and Socks

The wearing of synthetic fabrics under flight gear may cause severe skin injury during a fire. Underwear and socks shall conform with the following:

*Continued on next page*





## Section A. Protective Clothing, Continued

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A.3.e.(1) Underwear	100% cotton (T-shirts must be white, with crew neck or v-neck); cotton/wool blend; 100% wool; Nomex; or DSUG I, II, III (ADC undergarment)
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<b>EXCEPTION</b>	Rescue Swimmers in dry suits may wear any of the long underwear choices listed in the Coast Guard Helicopter Rescue Swimmer Manual, COMDTINST M3710.4 (series).
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A.3.e.(2) Socks	<ul style="list-style-type: none"><li>▪ at least 80% cotton; or</li><li>▪ at least 80% wool</li></ul>
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<b>NOTE</b>	In cold climates, cotton long underwear and socks will absorb perspiration and make the person subject to chill, hypothermia, and frostbite.
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## Section B. Flotation Equipment

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### B.1. Life Vests

All aircraft shall carry one life vest for each person on board.

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### B.2. Multi-Engine Fixed-Wing Aircraft

Occupants of ME/F/W aircraft are not normally required to wear flotation devices. The use of flotation devices shall be a decision made on a case-by-case basis by the aircraft commander or the command. If the MD1127-V22 or LPP-1 is worn, the yoke shall be placed around the neck.

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### B.3. Rotary-Wing Aircraft

R/W aircrew members shall wear the survival vest during all flight operations.

All other occupants of R/W aircraft shall wear a life vest when the aircraft is operated over water beyond safe autorotative distance from land. If the MD1127-V22 or LPP-1 is worn, the yoke shall be placed around the neck.

---

### B.4. Minimum contents of Survival Vests

The Aviation Life Support System Manual, COMDTINST M13520.1 (series), specifies minimum contents of the survival vest. Commanding officers may require additional items to meet local conditions with the approval of Commandant (G-OCA).

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### NOTE

The LPU-26/PE may be used as a survival vest, but not as an egress breathing device by personnel who have not completed the initial and recurrent shallow water egress training (SWET) required in Chapter 8 of this Manual. The LPU-26/PE shall not be installed or worn on F/W aircraft.

If not current, R/W crews must complete SWET within 60 days of arrival at a unit.

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## Section C. Oxygen

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### C.1. Crew Member Oxygen Requirements

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C.1.a. Unpressurized Aircraft      Oxygen shall be used at all altitudes above 10,000 feet above mean sea level (MSL). Aircrew should be aware of the physiological degradation of high altitude flight.

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#### **EXCEPTION**

When no oxygen equipment is available, an unpressurized aircraft may ascend to 12,000 feet MSL provided it does not remain above 10,000 feet MSL for more than three hours.

- Aircraft with oxygen equipment available but unable to pressurize will not exceed flight level (FL) 180 unless a comprehensive briefing by competent aviation medical authority is obtained immediately prior to the flight. This is to reacquaint crewmembers with the hazards associated with high altitude flight, such as decompression sickness, hypoxia, etc., and to ensure adherence to preparatory measures, such as prebreathing.
- 

### C.1.b. Pressurized Aircraft

For aircraft other than the C-37A, if cabin pressure altitude is maintained at 10,000 feet or less, the following will apply:

- Oxygen masks must be ready for immediate use when above FL 180. Above FL 250, one pilot at the controls shall either use oxygen or have an approved quick-donning mask with instant intercommunication system (ICS) capability properly adjusted and positioned for use within five seconds.
- When above FL 250, when one pilot leaves his flight control position, the other pilot shall use oxygen.
- When above FL 410, one pilot at the controls shall use oxygen.

C-37A aircraft shall follow FAR 91.211 oxygen requirements.

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*Continued on next page*



## Section C. Oxygen, Continued

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### **C.2. Passenger Oxygen Requirements**

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C.2.a. Unpressurized Aircraft	Oxygen shall be used at all altitudes above 10,000 feet MSL, subject to the exception stated in Paragraph C.1.a. above.
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C.2.b. Pressurized Aircraft	All passengers shall use oxygen when cabin pressure altitude exceeds 10,000 feet, subject to the exception stated in Paragraph C.1.a. above. Above FL 250, oxygen must be readily available for all passengers for emergency use. Enough oxygen shall be carried to provide for all passengers until the aircraft can descend to 10,000 feet MSL.
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## Section D. Safety Devices

### D.1. Personnel Safety Restraint

Each occupant of a Coast Guard aircraft in motion shall occupy an aircraft seat and wear a properly fastened safety belt. Where installed, both a safety belt and shoulder harness shall be worn.

#### D.1.a. Exceptions

Exceptions may be granted by the pilot in command for:

- Mission urgency;
- Required inflight crew duties;
- Crew and passenger movement when above 1000 feet absolute altitude, in smooth air; and
- Training and standardization checks. In this case, the PIC may authorize necessary personnel to stand on the flight deck of C-130 aircraft during takeoff and landing when required for training or standardization checks of flight engineers. In addition, C-130 Standardization Unit instructor pilots may stand on the flight deck when performing standardization checks.

#### D.1.b. Safety Harness

Crewmembers engaged in activity near an open or faulty hatch, door, ramp, or window shall wear a properly attached safety harness (“gunners belt”).

#### D.1.c. Space-Available Passengers

Restraint for passengers participating in the “Space-Available Travel Program” is specified in Chapter 4, Paragraph C.2.

### D.2. Personnel Hoisting Devices

Only personnel hoisting devices (strops, baskets, litters, harnesses, etc.) which have been approved by Commandant (G-OCA) for use on Coast Guard helicopters are authorized.

Personnel hoisting devices maintained at air stations shall be enrolled in the Aviation Computerized Maintenance System (ACMS).

Approved litters aboard Cutters or at Small Boat stations shall be marked as “Helicopter Hoistable” and maintained in accordance with the Rescue and Survival Systems Manual, COMDTINST M10470.10 (series).

*Continued on next page*



## Section D. Safety Devices, Continued

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- D.3. Ballistic Vests**      Commanding officers may specify ballistic protective vests for aircrew personnel.



## Section E. Minimum Rescue and Survival Equipment

### E.1. Overview

Table 7-2 denotes the minimum rescue/survival equipment required on Coast Guard Aircraft.

**Table 7-2**

Minimum Rescue/Survival Equipment Required On Board Coast Guard Aircraft					
	ITEM	LRS	MRS	MRR	SRR
<b>1.</b>	<b>Pyrotechnics</b>				
	MK-25 Arming Tool	2	1	1	1
	MK-25 Marine Location Marker	8	4	3	3
	MK-58 Marine Location Marker	6	1	1	0
<b>2.</b>	<b>Rescue and Survival Equipment</b>				
	Air Delivery Survival Kit (ADSK)	1	0	0	0
	Air Delivery System Can (for Portable Radio/Small Items ADS)	1	1	0	0
	ADR-6 Air Drop Raft (One six -place raft dropped by parachute)	0*	1	0	0
	ADR-20 Air Drop Raft (One 20-place raft dropped by parachute)	0*	0*	0	0
	ASRK-18 Air Sea Rescue Kit (three 6-place rafts and two accessory containers dropped inflated or uninflated)	1	0	0	0
	Blankets	0	0	2	2
	Cable Cutter	0	0	1	1
	Crash Ax	2	1	0	1
	Datum Marker Buoy (DMB)	2	1	1	1
	Dewatering Pump	2	1	1	0
	Egress Breathing Device	0	0	4	4
	Emergency Parachute and Bailout System	0	0	0	0
	Emergency Recovery Device (ERD)	0	0	1	0*
	First Aid Kit	10	1	2	2
	Flashlight	4	2	2	2
	Knee Pads	0	0	1	1
	Life Preserver, MD1127-V22, airline style vest, or LPP-1 (passenger)	8	3	4	2
	Litter	0	0	1	0
	Message Container	10	5	5	3
	Quick Splice	0	0	1	1
	Raft, LRU-15 (20 person, wing stowage)	2	0	0	0
	Raft, LRU-20/A (6 person)	0	1	1	1
	Rescue Basket	0	0	1	1
	Rescue Sling	0	0	1	1
	Safety Harness (gunners belt)	3	2	2	2
	Salt Packets	15	15	15	15
	Strobe Light w/Float	3	2	2	2
	Survival Vest (aircrew)	12	5	4	4
	Trail Line — 105 ft	0	0	2	1
	Work Gloves	1	1	1	1
* Item is optional.					
<b>NOTES</b>					
1. Units may elect to carry the thermal recovery capsule (TRC) in helicopters in colder climates.					
2. All aircraft shall carry one life vest for each person on board; for passengers, only inflatable military aircraft type life preservers are authorized.					
3. All aircraft shall carry liferafts for flights that remain over water longer than 30 minutes or extend beyond 100 nautical miles from the nearest shore.					







# CHAPTER 8: FLIGHT CREWMEMBER DESIGNATIONS, QUALIFICATIONS, AND TRAINING

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## **Chapter 8. Flight Crewmember Designations, Qualifications, and Training**

### **Overview**

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#### **Introduction**

All flight crewmembers require thorough training to function as efficient members of a safe and effective flight team. To ensure crewmembers develop and maintain a high standard of proficiency, commanding officers of aviation units shall ensure completion of training as described in this chapter. Commanding Officers shall require training beyond these minimums if necessary to maintain proficiency.

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#### **In this chapter**

This chapter is divided into 14 sections:

- Administrative Requirements for Aviation Units
  - Designations
  - Requirements for Designations
  - Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty
  - Minimum Recurrent Training Requirements for Coast Guard Pilots Assigned to Duty Involving Flying  Proficiency (DIFPRO)
  - Compliance with Recurrent Training Requirements
  - Annual Proficiency Checks
  - Miscellaneous Proficiency Requirements
  - Other Periodic Training
  - Special Qualification Requirements
  - Pilot Instrument Qualification
  - Rescue Swimmer Operations Training
  - Lapse and Redesignation
  - Approved Simulators
-



## Section A. Administrative Requirements for Aviation Units

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### **A.1. Unit Training Program**

Unit training programs shall be established to prepare flight crewmembers for designation and to maintain desired skills through recurrent training.

---

### **A.2. Pilot Examinations**

Examinations shall be prepared and administered to satisfy the examination requirements prescribed for designations and instrument ratings. Comprehensive open and closed book tests are required. The use of exams developed by standardization units is recommended.

---

### **A.3. Enlisted Flight Crewmember Examinations**

Coast Guard Institute exams shall be administered in conjunction with Institute courses. Recommend changes to Coast Guard Institute courses as necessary to the appropriate standardization unit. If Coast Guard Institute course exams are not available; examinations shall be prepared and administered to satisfy requirements. The use of examinations developed by standardization units is recommended.

---

### **A.4. Flight Standards Board**

A Flight Standards Board (FSB) composed of experienced Aircraft Commanders (ACs), Instructor Pilots (IPs), and enlisted flight crewmembers shall be established. The Board's function will be to advise the commanding officer on matters pertaining to unit standardization, aircraft, and crew performance and other related topics.

Members of the Flight Examining Board may serve concurrently on the Flight Standards Board.

---

### **A.5. Flight Examining Board**

A Flight Examining Board (FEB) composed entirely of designated flight examiners representing pilots and each enlisted aircrew position shall be established. Designation and flight checks shall be given by members of the FEB. Instructor designation does not constitute automatic membership on the FEB.

Members of the FEB may serve concurrently on the Flight Standards Board.

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## Section A. Administrative Requirements, Continued

### A.6. Refresher Training/Rechecks

Provide refresher training and rechecks to individuals who fail standardization checks.

### A.7. Taking Action

Take appropriate action when individuals do not maintain a current designation, fail to meet recurrent training minimums, or fail an annual SAR procedures or standardization check. The Commanding Officer shall notify Commandant (G-OCA) in writing when an Aircraft Commander under his or her command loses his or her designation for reasons other than medical.

### A.8. Training Information Data Entry

Ensure the required training information is entered into the AMMIS database.

### A.9. Records/Logbooks

Maintain all aircrew members' training records and logbooks.

#### A.9.a. Training Records

The appropriate AMMIS report reflecting the completion of the most recent training requirement is adequate evidence of completion. This report must be filed in the individual's training jacket.

The United States Coast Guard Training Record (CG Form 5285) is the standard training jacket. The standard cover sheets for each section can be found at the following web address: [http://cgweb.comdt.uscg.mil/G-OCA/Training%20Jackets/training\\_jacket.htm](http://cgweb.comdt.uscg.mil/G-OCA/Training%20Jackets/training_jacket.htm). The cover sheets are listed as follows: Cover Page, Record of Aircraft Designation, Record of Formal Training Pages 1 & 2, Record of Special Qualifications/Designations, Record of Transfer History. These cover sheets are the standard recording pages for training and should be inserted into the appropriate sections of the training jacket.

Upon PCS, this training record will be sealed and hand-carried by the member to the gaining command. It will be maintained throughout an individual's career as a Coast Guard flight crewmember.

All completed syllabi and standardization check sheets will be retained for a minimum of four (4) years following completion. Each individual's record must be updated annually, preferably just before the unit's Standardization Visit. The AMMIS report is adequate evidence of completion of training requirements.



## Section A. Administrative Requirements, Continued

### A.9.b. Log Books

For pilots, each issuance, change, or revocation of a designation, and the periodic renewal of instrument qualifications, standardization checks, SAR procedures checks, Shipboard Helicopter, and NVG operations shall be recorded on the Qualifications and Achievements pages of the log book and signed by the commanding officer of the issuing command.

See Chapter 9, Section F, and Appendix H for additional logbook guidance.

### A.10. Maintaining Designations/Qualifications Records

Maintain records of enlisted flight crewmember designations and qualifications in accordance with the following.

#### A.10.a. Coast Guard Qualifications Code

Assign and insert an appropriate Coast Guard Qualification Code (CGQC) in the individual's service record and by Personnel Action entry.

#### A.10.b. Signed Entry

Insert designation letter signed by the Commanding Officer into Section 1 of the individual's aircrew training record.

### A.11. Awarding Aircrew Insignia

Award the aircrew insignia in accordance with the Personnel Manual, COMDTINST M1000.6 (series), and Aircrew Certificate (CG-4685) in recognition of designation. The Aircrew insignia is a breast insignia prescribed by Coast Guard Uniform Regulations.

### A.12. Rescinding Aircrew Insignia

Rescind the right to wear the aircrew insignia when any of the following occurs:

- The commanding officer determines that the individual is no longer professionally qualified and revokes the designation.
- The individual requests to be permanently removed from flight duty.





## Section B. Designations

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### Overview

Each person flying as a crewmember on Coast Guard aircraft will hold a current designation in the type of aircraft or be in training for such designation.

Commanding officers shall ensure expeditious completion of syllabi. Personnel shall not be allowed to remain in a training syllabus without satisfactory progress for extended periods. Trainee status shall not be used to allow undesignated individuals to remain on flight orders.

There is no requirement that current designations be maintained in all assigned aircraft. In the interest of flight safety, multiple designations should be kept to a minimum consistent with the needs of the unit.

Crewmember designations issued before a change in designation requirements remain in effect, even if the individuals have not met the new requirements.

Flight Mechanics, however, must be Rescue Swimmer qualified to maintain their designation.

---

### B.1. Authority

Designations may be issued or revoked by commanding officers of aviation units.

Only aviation ratings (Aviation Maintenance Technician (AMT), Aviation Electronics Technician (AVT), and Aviation Survival Technician (AST)) and those non-rated personnel who are assigned an aviation designator (e.g., ANAM) are eligible for enlisted flight crewmember designations.

Flight Surgeons are designated and assigned by Commandant (G-WKH).

---

### B.2. Types of Designation

#### B.2.a. Pilot

Pilot (P) designations are Pilot Under Instruction (PUI), Copilot (CP), First Pilot (FP), Aircraft Commander (AC), Instructor Pilot (IP), Mission Commander (MC), and Flight Examiner (FE). The IP and FE designations are adjunctive qualifications to the AC designation for the purpose of more safely accomplishing unit training.

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## Section B. Designations, Continued

### B.2.b. Other Crewmember Designations

Other crewmember designations are: Basic Aircrew (BA), Avionicsman (AVI), Dropmaster (DM), Loadmaster (LM), Flight Mechanic (FM), Navigator (N), Sensor Systems Operator (SSO), Tactical System Operator (TSO), Radio Operator (R), Rescue Swimmer (RS), Flight Engineer (FE), Flight Surgeon (FS), Aviation Gunner (AG), Aviation Mission Specialist (AMS), and day-only Hoist-Qualified Basic Aircrew (HQBA).

### B.2.c. Authorized Designations

Table 8-1 lists flight crewmember designations authorized for each aircraft.

Table 8-1

	HH-65	HH-60	MH-68	HC-130	HU-25	VC-4	C-37
FM	•	•				•	•
RS	•	•					
BA	•	•	•	•	•		•
AG			•				
HQBA	•	•					
AVI					•	•	•
DM				•	•		
SSO				•	•		
LM				•			
R				•			
N				•			
TSO				•			
FE				•			
FS	•	•	•	•	•	•	•
AMS	•	•	•	•	•	•	•



## Section C. Requirements for Designations

### Overview

Minimum requirements for designations are prescribed in this paragraph. Commanding officers may supplement these requirements and may increase flight time minimums prescribed for designations.

Flight crewmembers designated in one type of aircraft may be exempt from meeting those requirements for another type of aircraft that are identical in both, if current proficiency and knowledge are considered satisfactory by the commanding officer.

### C.1. Flight Syllabi

Commandant (G-OCA) approved flight syllabi shall be used for all flight crewmember designations.

Completed syllabi shall be retained in the individual's training record for no less than four (4) years.

### C.2. General Requirements for All Designations

Per Paragraph I.4. of this chapter, the following general requirements must be completed before commencing the flight portion of any designation syllabus, except those items in which a trainee is current.

- Emergency Ground Egress Training
- Training in Installed Survival Gear
- Training in Use of Intercom System and Terminology
- Water Survival Training and Swim Test
- Low Pressure Chamber Training (Pressurized Aircraft)
- 9D5/9U44 (Helicopters)

### C.2.a. Other Training

The following shall be completed before designation, except those items in which a trainee is current need not be repeated.

- Training in Search and Scanning
- Training in Operating the Flare Launch Panel (C-130)
- Egress Breathing Device/Shallow Water Egress Training (R/W only)

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## Section C. Requirements for Designations, Continued

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**C.2.a.(1). Within 60 Days after Designation/Transition**

The following training shall be completed within a 60-day period after designation at ATC Mobile, or within a 60-day period after arrival at an operational unit for C-130 personnel having just completed transition training at Little Rock AFB.

- First Aid and CPR Training
- Local Initial OPSEC/COMSEC Training
- Training in the Use of SAR Equipment and Pyrotechnics

---

**C.2.a.(2) Unit Familiarization Training**

Each member reporting to a unit shall receive, as a minimum, training on unit-unique equipment, operating area survival demands and equipment, area familiarization, hospital sites within operating area, and local policy and procedures prior to any operational flying.

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**C.2.a.(3) Land Survival Training**

Each trainee shall attend a land survival briefing, or view a locally produced audio-visual presentation tailored to the problems unique to the unit's operating environment.

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## Section C. Requirements for Designations, Continued

### C.3. Requirements for CP Designation

To be designated a CP, an aviator must meet the following requirements:

- Hold a current designation as a military aviator.
- Complete an appropriate flight syllabus, including a check flight. The U.S. Air Force C-130 Pilot Initial/Requalification Course or a suitable alternative qualification course approved by Commandant (G-OCA) is required before initial C-130 designation/requalification. The ATC Mobile HU-25, HH-60, or HH-65 transition/requalification course is required before initial designation/requalification in those aircraft.
- Hold a valid Coast Guard or other military instrument rating in the category of aircraft.
- Be proficient in navigation and the use of all installed navigation equipment.
- Complete a written closed-book examination on critical aircraft systems, emergency procedures, and limitations.
- Complete a written open-book examination on:
  - **Aircraft systems and emergency procedures,**
  - **Communication and security procedures,**
  - **Federal Aviation Regulations,**
  - **Local flight rules,**
  - **Installed SAR equipment, and**
  - **Coast Guard Air Operations Manual, COMDTINST M3710.1 (series).**

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## Section C. Requirements for Designations, Continued

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### C.4. Requirements for FP Designation

To be designated a FP, an aviator must meet the following requirements:

- Be recommended for the FP designation by the unit Operations Officer.
- Fulfill, to a more advanced degree, all requirements for CP designation.
- Have not less than 500 hours of total pilot time in military aircraft.
- Complete an appropriate flight syllabus including a check flight.
- Complete a written closed book examination on critical aircraft systems, emergency procedures, and limitations.
- Complete a written open book examination on:
  - **Aircraft systems and emergency procedures;**
  - **All applicable SAR and law enforcement directives and publications, pertinent Coast Guard manuals, and Commandant Instructions;**
  - **Weight and balance;**
  - **Fuel management; and**
  - **Ground security of aircraft away from home unit.**
- AUF FP Designation (in addition to the above requirements):
  - **Have not less than 1000 hours of total pilot time in military aircraft with not less than 500 hours R/W.**
  - **Complete Commandant (G-OCA) approved ground/flight syllabus specific to AUF Operations.**
  - **Complete a written open book examination on:**
    - **AUF Policy**
    - **AUF Operations**
    - **Evidence gathering procedures**

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## Section C. Requirements for Designations, Continued

### C.5. Requirements for AC Designation

To be designated an AC, an aviator must meet the following requirements:

- Be recommended for the AC designation by the unit Operations Officer.
- Fulfill to a more advanced degree all requirements for FP.
- For multi-piloted fixed-wing (F/W) aircraft, have not less than 900 total pilot hours in military aircraft (excluding 3rd pilot time), of which at least 250 hours is in F/W aircraft.
  - For all multi-engine aircraft, have at least 250 hours in F/W multi-engine aircraft.
- For rotary-wing (R/W) aircraft, have not less than 700 total pilot hours in military aircraft (excluding 3rd pilot time), of which at least 150 hours is in R/W aircraft.
- Complete a formal National Search and Rescue residence or correspondence course. The Search and Rescue Fundamentals Correspondence Course (Short Title: SARFND) was designed to fulfill this requirement.
- Complete an appropriate flight syllabus including a check flight.
- Complete a closed-book examination on critical aircraft systems, emergency procedures, and limitations.
- Complete an open-book exam on:
  - Coast Guard Air Operations Manual, COMDTINST M3710.1 (series)
  - U. S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual, COMDTINST M16130.2 (series).
  - Current directives, including unit, district, and Commandant Instructions
  - Pertinent technical data and publications concerning aircraft operations
  - Application of operations and communications plans
- Complete an oral exam that focuses on the practical application of the material examined via the open- and closed book exams. Special emphasis will be placed on evaluating the candidate's judgment and maturity during this exam.

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## Section C. Requirements for Designations, Continued

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### C.5. Requirements for AC Designation (cont'd)

- Demonstrate, to a high degree, ability to:
  - Exercise flight discipline and aircrew supervision, including the use of Crew Resource Management principles.
  - Carry out all types of SAR missions including duty as on-scene commander, as appropriate for type.
  - Carry out all other types of missions normally performed by the unit (i.e., Drug or Fisheries LE, SAR, MEP, ATON, etc.).
- AUF AC Designation (in addition to the above requirements):
  - **Have not less than 1000 hours of total pilot time in military aircraft with not less than 500 hours R/W and no less than 50 hours specific to AUF Aircraft.**
  - **Complete Commandant (G-OCA) approved ground/flight syllabus specific to AUF Operations.**
  - **Complete a written open book examination on:**
    - **AUF Policy**
    - **AUF Operations**
    - **Evidence gathering procedures**

### C.6. Requirements for MC Designation

- Fulfill to a more advanced degree all requirements for AC.
- Have not less than 1000 hours of total pilot time in military aircraft with not less than 500 hours R/W and no less than 50 hours specific to AUF Aircraft.
- Complete Commandant (G-OCA) approved ground/flight syllabus specific to AUF Operations.
- Complete a minimum of one AUF deployment before designation.
- Complete a written open book examination on:
  - **AUF Policy**
  - **AUF Operations**
  - **Evidence gathering procedures**

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## Section C. Requirements for Designations, Continued

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### **C.7. Requirements for Other Flight Crewmember Designations**

#### **C.7.a. Basic Aircrew**

To be designated a basic aircrew, the person must have fulfilled the following requirements:

- **Must:**
  - Be a graduate of a military aviation “A” school; or from a Coast Guard approved commercial aviation “A” school; or have achieved an aviation rating in another U. S. Armed Forces;
  - Have completed all lessons and passed the end of course test (EOCT) for the SAR Aircrew Basic Course.; or have been previously qualified in another Coast Guard Aircraft.
- Must have completed the aircraft type specific Basic Aircrew Coast Guard Institute Course and syllabus, or a syllabus prescribed by the unit commanding officer (if one is not published by the CGI).

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## Section C. Requirements for Designations, Continued

### **C.7.b. Avionicsman, Dropmaster, Loadmaster, Flight Mechanic, Navigator, Sensor Systems Operator, Tactical Sensor Operator and Flight Engineer**

To be designated in one of these crew positions, an individual must have completed all requirements for Basic Aircrew in type.

- HU-25 Dropmaster, Avionicsman must:
  - Complete the appropriate Coast Guard Institute Course/Syllabus; or
  - Complete ATC Mobile's Avionicsman/Dropmaster course.
- HU-25B Sensor Systems Operator must be a designated HU-25 Avionicsman and complete the HU-25 Sensor Systems Operator syllabus.
- HU-25C Sensor Systems Operator must be a designated HU-25 Avionicsman and complete the HU-25C Sensor Systems Operator syllabus.
- C130 Flight Engineer, Radio Operator, Navigator, Loadmaster, or Dropmaster, Tactical Sensor Operator, Sensor System Operator:
  - Complete the appropriate Coast Guard Flight Engineer Syllabus: Complete the DoD or a Coast Guard approved commercial C-130 Flight Engineer Qualification Course
  - Navigator:
    - ⇒ Must have been previously qualified as Radio Operator;
    - ⇒ Complete the ATTC Basic Air Navigation course and any other locally required syllabus items.
- Helicopter Flight Mechanic. Complete appropriate Coast Guard Institute Correspondence Course and Syllabus.
- Hoist-Qualified Basic Aircrew (HQBA). Complete appropriate sections, as identified by ATC Mobile, of Coast Guard Institute Correspondence Course and syllabus. The HQBA position is optional. The intent of this position is to reduce training hours and assist with SAR cases and hoist training flights that do not require a rescue swimmer. This position is not rescue swimmer qualified and is restricted to Day-Only Hoist.

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## Section C. Requirements for Designations, Continued

### **C.7.c. Rescue Swimmer**

To be designated a Rescue Swimmer; an individual must have completed the syllabus for BA in the HH-60 and the HH-65. In addition, an individual must:

- Complete a military helicopter rescue swimmer school.
- Complete the Coast Guard Syllabus for Rescue Swimmer for type of aircraft.
- Complete certification as a Coast Guard EMT

### **NOTE**

Rescue Swimmers previously designated in one helicopter type may be assigned duty standing status in a new type while completing the requirements of the paragraph above, not to exceed 60 days. Qualified Rescue Swimmers may log deployments regardless of the helicopter from which they are deployed.

### **C.7.d. Aviation Gunner**

- Complete appropriate Blackwater specialized (Aviation Gunner) tactical weapons course in Myock, NC.
- Complete a Commandant (G-OCA) approved AG ground and flight syllabus and a Commandant (G-OCU) ground syllabus
- Non-aviation ratings must successfully complete an aircrew physical, swim test, dunker training and crew resource management training.

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## Section C. Requirements for Designations, Continued

### C.8. Instructor Designation Requirements

#### C.8.a. Upgrade Flight Syllabus Instruction

Only designated instructors, qualified in the type of aircraft, position, and training being conducted, shall provide initial and upgrade flight syllabus instruction.

The below statements only pertain to the HH65, HH60 and HU25:

You must be supervised by a qualified aircrew instructor for sign off at the standard (S) level for the Preflight, Thru-flight, and Post-flight aircrew ground syllabus items.

All other aircrew ground syllabus instruction may be given and signed off to the standard (S) level by a crewmember qualified in the type of aircraft, position and training being conducted.

#### C.8.b. Designated Instructor

Commanding officers shall designate in writing each instructor assigned to a unit. Prospective instructors must meet the following minimum qualification requirements.

##### C.8.b.(1) Judgment

The instructor must possess superior judgment.

##### C.8.b.(2) Personal Qualities

The instructor must have patience, tact, understanding, and a desire to instruct others.

The instructor must have a personality that inspires confidence and wins the respect of each student.

*Continued on next page*



## Section C. Requirements for Designations, Continued

<b>C.8.b.(3) Technical Knowledge</b>	The instructor must be thoroughly familiar with the aircraft systems and equipment, normal and emergency operating procedures, and aircraft performance under all conditions of flight for the respective crewmember position.
<b>C.8.b.(4) Proficiency and Experience</b>	<p>The instructor shall have sufficient experience to ensure the desired standard of knowledge, judgment, and proficiency in the maneuvers he or she will be instructing.</p> <p>The instructor must have been qualified and current in type for at least six months.</p>
<b>C.8.b.(5) Methods of Instruction</b>	Instructor pilots must have received formal military or civilian training in methods of instruction. It is desirable that aircrew instructors receive formal or locally prepared training in methods of instruction.
<b>C.8.b.(6) Instructor Syllabus</b>	Before designation, each instructor shall complete a Commandant (G-OCA) approved (if promulgated) or locally developed flight and ground syllabus.
<b>C.8.b.(7) Designation Checks</b>	A ground and/or flight check is required before any designation. Designation checks shall be conducted by a member of the Flight Examining Board or, at the discretion of the commanding officer, by an instructor assigned to a Standardization Unit.
<b>C.8.c. Instructor Currency Requirements</b>	<p>To maintain a current instructor pilot qualification, each IP shall conduct a combination of at least six of the following: upgrade syllabus flights, pilot flight checks, proficiency, or recurrent training syllabus flights during a semiannual period.</p> <p>Aircrew Instructors shall conduct at least three syllabus instruction flights, ground training sessions on the aircraft, or check flights in the crew position and type of aircraft designated during any semiannual period. C-130 Loadmaster Instructors may complete their semi-annual syllabus or flight checks in the aircraft without actually being in flight.</p> <p>Instructors who fail to conduct the minimum number of instructional or check flights lapse and must satisfactorily complete an instructor check before conducting further instructional flights.</p>

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## Section C. Requirements for Designations, Continued

### **C.8.d. Night Vision Goggle Instructors**

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A designated NVG instructor pilot shall give NVG instruction.

Level I NVG IPs must have at least eight hours of NVG flight time before designation.

ATC Mobile separately promulgates Level II NVG IP qualifications for each unique Level II program.

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty

### Overview

The requirements listed in Table 8-2 represents the minimum flight requirements for all pilots whose orders designate them DIFOPS, and for designated flight crewmembers, regardless of which designations are held in any type aircraft.

It is recognized that proficiency is dependent upon individual flight currency, total experience, and other factors including tempo of current operations.

In general, it is desirable to provide duty-standing pilots 20-25 flight hours per month to ensure adequate proficiency, limit operational risks, and not compromise flight safety.

**Where a multiple of a specific requirement or maneuver is specified, it is expected that the requirement will be prorated in a reasonable manner over the entire semi-annual period. Waiting until late in the period to meet the semi-annual requirement renders the training much less effective, demonstrates poor judgment on the part of the individual concerned, and shows inadequate supervision on the part of the command.**

### EXCEPTION

Those Coast Guard pilots assigned DIFOPS on exchange programs with another Service will fulfill the minimum requirements of that Service.

### NOTE

Flights may be made by Coast Guard flight crewmembers while in a leave status and can be logged to meet semiannual training requirements.

The Comptroller General has held that flights made while in a leave status may not be considered as meeting minimum flight requirements for crediting of flight pay.

### D.1. Minimum Recurrent Training Requirements

Minimum recurrent training requirements represent the minimum recurrent flight and ground training necessary to maintain proficiency. These requirements apply to all crewmembers assigned to flight status regardless of designation.

*Continued on next page*



## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

**D.2. Flight Training Syllabi** Commandant (G-OCA) approved (if promulgated) or locally developed recurrent flight training syllabi shall be completed semi-annually. These syllabi should contain adequate flexibility to monitor and provide for additional maneuvers as deemed necessary to maintain proficiency.

**D.3. Minimum Performance Standard** The minimum performance standard for any recurrent training requirement shall be at least equal to the performance standard required for current designation.

**Table 8-2**

<b>1. 12 YEAR LOW PRESSURE CHAMBER (LPC) TRAINING REQUIREMENTS FOR PILOTS OF PRESSURIZED AIRCRAFT</b>	
a.	LPC (pilots of pressurized aircraft)
<b>2. 72 MONTH TRAINING REQUIREMENTS FOR FLIGHT CREWMEMBERS AND MISSION SPECIALISTS</b>	
a.	9D5 Dunker (helicopter crews)
<b>3. CALENDAR YEAR GENERAL TRAINING REQUIREMENTS FOR FLIGHT CREWMEMBERS AND MISSION SPECIALISTS</b>	
a.	Standardization Check (Annual requirement - within 15 months of previous check)
b.	Swim Test (Not required for CGAS Washington)
c.	Wet Drill (Not required for CGAS Washington)
d.	Egress Breathing Device/Shallow Water Egress Training (SWET) (Helicopter crews)
e.	Emergency Ground Egress
f.	SAR Equipment and Pyrotechnics
g.	OPSEC/COMSEC Training (except AR&SC)
h.	Operational Hazard Awareness Training
i.	Land Survival Training
j.	Crew Resource Training (every 24 months)
k.	Physiological Training (pressurized aircraft pilots and aircrew)
l.	Evidence Gathering Techniques (AUF flight crewmembers)
m.	AUF Doctrine Review (AUF flight crewmembers)

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

Table 8-2, Cont'd

4. ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR PILOTS			
a. Standardization Check b. SAR Procedures Standardization Check (AC and FP only) (Should include satisfactory CATCH, MATCH or PATCH over water under simulated instrument or night condition) c. Flight Simulator Training (Semiannual requirement for CGAS Washington) d. Instrument Check (one check per aircraft category (can be performed in simulator)) e. NVG Check (one check per aircraft category)			
5. SEMI ANNUAL GENERAL TRAINING REQUIREMENTS FOR FLIGHT CREWMEMBERS			
Commandant (G-OCA) approved Recurrent Training Syllabus (if promulgated) or locally developed Recurrent Training Syllabus			
6. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR PILOTS			
	Single Qual Frequency	Dual Qual Frequency (Each Type)	Remarks
<b>a. Total Pilot Time</b>			
(1) AC/FP	48 hours	48 hours	1. Up to 12 hours can be flown in a simulator.
(2) CP	24 hours	24 hours	1. Not less than 24 hours FP time.
<b>b. Autorotations (R/W)</b>	5	5	1. Daylight only.
<b>c. Airways Training Flight</b>	1	1	1. May be conducted in either type if dual qualified. 2. May be accomplished in approved flight simulator.
<b>d. Night Time</b>	6 hours	4 hours	1. Simulator time can fulfill up to 1/2 night requirements.
<b>e. Landings</b>	5	4	1. At least 1 night full stop per each type.

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

Table 8-2 (cont'd)

	Single Qual Frequency	Dual Qual Frequency (Each Type)	Remarks
<b>f.</b>			
<b>(1) Approaches</b>	6 precision/ 6 non-precision	6 precision/ 6 non-precision	<ol style="list-style-type: none"> <li>One circling approach must be performed in each F/W type.</li> <li>When practical, actual, or simulated approaches shall be flown to field minimums.</li> <li>ShipHelo ops with RADAR assisted approaches, TACAN, and ADF approaches can fulfill non-precision requirements.</li> <li>Category II operations are not authorized.</li> <li>At least three (3) precision each must be accomplished in the manual (uncoupled) mode.</li> <li>Up to 1/2 of approach requirements may be accomplished in an approved flight simulator.</li> <li>For precision and non-precision approach minimums, at least two (2) of each must be accomplished at night in each type. For F/W aircraft at least two must be completed to a landing at night.</li> </ol>
<b>(2) Helo Approaches</b>			
<b>a. Coupled to Hover (over water)</b>	6	6	<ol style="list-style-type: none"> <li>At least four (4) must be completed at night; at least two (2) must be unaided.</li> <li>For HH-60, up to half may be completed in an approved flight simulator.</li> </ol>
<b>b. Manual to Hover</b>	6	6	<ol style="list-style-type: none"> <li>At least four (4) must be completed at night; at least two (2) must be unaided.</li> <li>For HH-60, up to half may be completed in an approved flight simulator.</li> </ol>

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

Table 8-2 (cont'd)

	Single Qual Frequency	Dual Qual Frequency (each Type)	Remarks
<b>g. SAR Procedures</b> (Not required for AR&SC) It is desirable to have CP fulfill the requirements.			
<b>(1) Boat Hoists</b>	6	6	<ol style="list-style-type: none"> <li>At least three (3) must be completed at night per type at least two (2) of which are unaided. Train in offshore environment if possible.</li> <li>Up to two (2) RS deployments can be used to fulfill this requirement.</li> <li>One (1) to a boat DIW with trail line.</li> </ol>
<b>(2) R/S Deployment and Recovery Sequences</b>	6	6	<ol style="list-style-type: none"> <li>At least four (4) must be completed at night per type at least two (2) of which are unaided.</li> <li>At least one (1) Direct Deployment by each AC/FP.</li> </ol>
<b>(3) F/W</b>			
a. ADS	2	2	
b. ASRK-18Kit	2	N/A	1. C-130 only.

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

Table 8-2 (cont'd)

	Single Qual Frequency	Dual Qual Frequency (each Type)	Remarks
<b>h. Night Vision Goggles</b> <b>(1) Level I</b> a. NVG flight time	4 hours	3 hours	1. The time interval between Level I NVG flights shall not exceed six (6) months.
<b>(2) Level II</b> a. NVG flight time  b. NVG Aided Night Land Recurrent Training (RT) Flight	4 hours  2	3 hours  1	1. The time interval between Level II NVG flights shall not exceed six (6) months. 2. The Annual NVG check may count as one (1) NVG RT.
<b>(3) Level III</b> a. NVG Flight Time  b. NVG Aided Night Land RT Flight c. NVG Aided Coupled Approaches to Hover d. NVG Aided Manual Approaches to Hover e. NVG Aided Boat Hoist f. NVG Aided R/S Deployment and Recovery Sequences	4 hours  2 2 2 1 2	4 hours  1 2 2 1 2	1. The time interval between Level III NVG flights shall not exceed six (6) months. 2. The Annual NVG check may count as one (1) NVG RT. 3. Copilots are not required to complete NVG Level III semi-annual hoist or Rescue Swimmer minimums.

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

Table 8-2 (cont'd)

<b>7. SEMI-ANNUAL AIR INTERCEPT TRAINING REQUIREMENTS FOR QUALIFIED PILOT AND SENSOR SYSTEMS OPERATORS</b>		
<b>a. HU-25A/D Pilots</b>	1 AI	1. Perform all maneuvers required for initial qualification at least once. 2. CP need not obtain or maintain an AI qualification.
<b>b. HU-25C Pilots</b>	5 AI	1. At least three (3) flown to ID position; two (2) flown to tracking position at night. 2. CP perform CP duties for four (4) AI – day or night.
<b>c. HU-25C SSO</b>	5 AI	1. At least three (3) will be to ID position.
<b>8. SEMI-ANNUAL TRAINING REQUIREMENTS FOR SENSOR AND TACTICAL SYSTEMS OPERATORS</b>		
<b>a. HC-130H SSO</b>	RT-1/RT-2	Refer to HC-130H Training Manual, CGTO-1C-130-1-A for RT Syllabus
<b>b. HC-130H TSO</b>	RT-1	Refer to HC-130H Training Manual, CGTO-1C-130-1-A for RT Syllabus
<b>9. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR FLIGHT SURGEONS</b>		
<b>a. Total Flight Time</b>	24 hours	1. To include at least four (4) hours of night time.
<b>b. ShipHelo Operations</b>	1 hour	1. If assigned to a unit deploying helicopters aboard ships. This one (1) hour flight time should be aboard a helicopter engaged in shipboard practice landings.
<b>10. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR LOADMASTERS</b>		
One cargo loading exercise (with weight and balance calculations).		
<b>11. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR DROPMASTERS</b>		
<b>a. Radio Can/Pump Drop (C-130)</b>	1	
<b>b. MA-3/ASRK-24 Kit Drop (C-130)</b>	1	
<b>c. Pump Drop (HU-25)</b>	1	
<b>d. ADS Can/Raft Drop (HU-25)</b>	1	
(All drops, whether actual or drill equipment, shall include proper rigging and placing equipment in the drop position, while in flight. For the HU-25, one drop may be simulated; for the C-130, all drops shall be actual drops from the aircraft.)		

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## Section D. Minimum Recurrent Training Requirements for Coast Guard Flight Crewmembers Assigned to Operational Flight Duty, Continued

**Table 8-2 (cont'd)**

<b>12. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR HELICOPTER FLIGHT MECHANICS</b>			
a.	Boat Hoists	4	(2 at night, 1 to a boat DIW with trail line)
b.	Rescue Swimmer Deployments	4	(2 at night; each deployment/recovery may count as a boat hoist, not to exceed 2; at least 1 Direct deployment)
c.	Recovery Sequences		
c.	Hoist Emergency Drill	2	(recommend at least: 1 hoist failure, 1 ICS failure)
<b>13. SEMI-ANNUAL SPECIFIC TRAINING REQUIREMENTS FOR HELICOPTER HOIST QUALIFIED BASIC AIRCREW</b>			
a.	Boat Hoists	4	(1 to a boat DIW with trail line)
b.	Hoist Emergency Drill	2	(recommend at least: 1 hoist failure, 1 ICS failure)
<b>14. SPECIFIC TRAINING REQUIREMENTS FOR HELICOPTER RESCUE SWIMMERS</b>			
Additional training requirements for Helicopter Rescue Swimmers are prescribed in the Helicopter Rescue Swimmer Operations Manual, COMDTINST M3710.4 (series).			
<b>15. SPECIFIC SEMI-ANNUAL TRAINING MINIMUM REQUIREMENTS FOR AUF FLIGHT CREWMEMBERS</b>			
a.	Formation Flight		2 (each min. 1.5 hrs duration), with 1 at night.
b.	Tactics Flight		2 (each min. 1.5 hrs duration), with 1 at night.
c.	Aerial Gunnery Flight		2, with 1 at night.
d.	Aerial Gunnery Flight during Deployments		2, with 1 at night.



## Section E. Minimum Recurrent Training Requirements for Coast Guard Pilots Assigned to Duty Involving Flying Proficiency (DIFPRO)

### Overview

Pilots on DIFPRO orders shall maintain only a CP designation in not more than one type aircraft, and shall complete the following:

### E.1. Semi-annual

- Flight Time (hours) - 24 minimum, 50 maximum.
- Night Time - not required.
- Instrument Approaches:
  - Precision – five (5) minimum
  - Non-Precision – five (5) minimum

### E.2. Annual Instrument Rating

Must be current in category.

### NOTE

Any portion of these requirements may be completed in an approved simulator.

### E.3. 72-Month Training Requirement

9D5 Dunker (helicopter crews).



## Section F. Compliance with Recurrent Training Requirements

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### F.1. Commanding Officer Responsibilities

Commanding officers and administrative seniors shall ensure that sufficient opportunities are afforded all crewmembers under their command to comply with prescribed minimum training requirements.

**Individual crewmembers, commanding officers, and administrative seniors are all responsible for ensuring that maximum training is obtained on all flights.**

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### F.2. Pilots

The commanding officer shall submit a letter report to Commandant (G-OCA) via the chain of command, together with a statement from the crewmember concerned, whenever the requirements of this chapter have not been met.

If an aviator fails to acquire or maintain an instrument rating, this report shall be submitted within 30 days of the time when that aviator failed to obtain that rating.

If a crewmember fails to meet his or her minimum semi-annual flight requirements, the report shall be submitted within 30 days following the end of the semi-annual period.

The Commandant (G-OCA) will review each case of noncompliance. The crewmember shall be notified only if adverse action is to be taken.

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### F.3. Other Flight Crewmembers

Unit training officers shall submit a letter report to the commanding officer via the chain of command, together with a statement from the flight crewmember concerned whenever the requirements of this chapter have not been met. This report must be submitted within 30-days following the end of the period.

The crewmember shall not fly as a member of a Coast Guard aircrew pending a decision by the commanding officer regarding this status.

The commanding officer may remove the individual from flight orders, allow additional training, or take other action as appropriate. The action taken will become a permanent part of the individual's training record.

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## Section F. Compliance with Recurrent Training Requirements, Continued

### F.4. Prorated Requirements

The semi-annual minimum flight requirements may be prorated for flight crewmembers who are not available for flying duty for a portion of that semiannual period because of PCS transfer, non-flying TAD, protracted emergency, sick leave, or similar circumstances. In this sense, “protracted” is meant to be more than 30-days.

Semi-annual requirements for individuals receiving an initial designation or change in designation may also be prorated. The semi-annual requirement is the amount determined from the following table. Reduce the months remaining according to the following criteria (consecutive days absent).

0-14 days	No reduction
15-45 days	1 month
46-75 days	2 months
76-105 days	3 months
106-135 days	4 months
136-165 days	5 months
166 days to 6 months	No requirement

**Table 8-3**

<b>PRORATED AIRCREW MINIMUMS</b>														
Months Remaining	<b>Hours of Flight Time or Number of Events</b>													
	48	24	12	11	10	9	8	7	6	5	4	3	2	1
5	40	20	10	9	8	7	7	6	5	4	3	2	2	1
4	32	16	8	7	7	6	5	5	4	3	3	2	1	1
3	24	12	6	6	5	5	4	4	3	3	2	2	1	1
2	16	8	4	4	3	3	3	3	2	2	1	1	1	1
1	One Standardization Check Flight													



## Section G. Annual Proficiency Checks

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### **G.1. Standardization Checks**

Each flight crewmember (except pilots in DIFPRO assignments) shall satisfactorily complete an annual (within 15 months, day to day, of previous check) standardization flight check in each type in which he or she holds a designation. This check shall be given by a member of the unit FEB or, at the discretion of the commanding officer by an instructor attached to a standardization unit.

The standardization check for pilots shall be the same as the designation flight check for the crew position being evaluated, with emphasis being placed upon emergency procedures and maximum performance maneuvers.

Standardization checks for HC-130 BAs and LMs may be conducted on the ground.

Flight Engineer standardization checks (excluding initial qualification) may be conducted in a simulator by a qualified Flight Examiner.

All other standardization checks shall be conducted in flight.

A standard evaluation check sheet, promulgated by the applicable standardization unit, shall be used for the check.

Each crewmember shall demonstrate satisfactory proficiency in all areas of the standardization check.

The standard of performance for any standardization check item shall be the same as the standard for initial designation.

A satisfactorily completed closed- and/or open-book examination on critical aircraft systems, emergency procedures and limitations is a required part of the standardization check.

All F/W aircrew shall don and use oxygen equipment during annual standardization checks.

The standardization check may be performed in the simulator for CGAS Washington pilots.

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## Section G. Annual Proficiency Checks, Continued

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### **G.2. Pilot SAR Procedures Check**

All pilots who hold FP or AC designations in aircraft having a SAR mission shall be required to satisfactorily complete an annual (within 15 months, day to day, of previous check) SAR procedures check. This check may be given in conjunction with the annual standardization flight check.

A member of the unit Flight Examining Board shall give this check or, at the discretion of the commanding officer, a pilot attached to the standardization unit.

SAR procedures checks shall include, as a minimum: 1) search planning and procedures; 2) delivery of rescue equipment; 3) hoisting (R/W); 4) simulated instrument or night instrument approach to a hover (R/W).

A standard evaluation check sheet, promulgated by the applicable standardization unit, shall be used for the check.

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### **G.3. Air Intercept Standardization Flight Checks**

All Air Intercept qualified pilots and HU-25C Sensor System Operators (SSO) shall complete an annual standardization flight evaluation demonstrating proficiency in those maneuvers specified in the check flight portion of the Commandant (G-OCA) approved intercept training course.

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### **G.4. AUF Standardization Tactics Checks**

All AUF qualified pilots shall complete an annual standardization tactics flight evaluation demonstrating proficiency in those maneuvers specified in the check flight portion of the Commandant (G-OCA) approved tactics training course.

A member of the unit Flight Examining Board shall give this check or, at the discretion of the commanding officer, a pilot attached to the standardization unit.

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## Section G. Annual Proficiency Checks, Continued

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### **G.5. NVG Check**

Each rotary wing pilot (except pilots in DIFPRO assignments) shall satisfactorily complete an annual (within 15 months, day to day, of previous check) NVG flight check in each type in which he or she holds a designation. This check shall be given by a member of the unit FEB or, at the discretion of the commanding officer, by an instructor attached to a standardization unit.

The NVG check shall emphasize emergency procedures and maximum performance maneuvers.

A standard evaluation check sheet, promulgated by the applicable standardization unit, shall be used for the NVG check.

Each crewmember shall demonstrate satisfactory proficiency in all areas of the NVG check.

The standard of performance for any NVG check item shall be the same as the standard for initial designation.

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## Section H. Miscellaneous Proficiency Requirements

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### **H.1. Pilot Shipboard Helicopter Training**

Pilot Shipboard Helicopter training requirements are listed in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).

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### **H.2. Rescue Swimmer Requirements**

For specific rescue swimmer requirements, see the Coast Guard Helicopter Rescue Swimmer Manual, COMDTINST M3710.4 (series).

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### **H.3. Warm-Up Flight**

Any pilot or other flight crewmember who has not flown in his or her primary crew position (in flight or in an approved simulator) during the previous 30 days will be required to fly a warm-up flight prior to flying in that crew position on an operational mission. An AC or FP who has not flown in his or her primary crew position (in flight or in an approved simulator) during the previous 30 days will be required to fly a warm-up flight prior to being assigned as pilot in command. Any pilot deployed aboard a ship who has not flown in his or primary crew position (in flight or in an approved simulator) during the previous 21 days will be required to fly a warm-up prior to flying in that crew position on an operational mission. An AC or FP deployed aboard a ship who has not flown in his or primary crew position (in flight or in an approved simulator) during the previous 14 days will be required to fly a warm-up prior to being assigned as pilot in command.

These requirements are for individual flight currency and are separate from the minimum recurrent training requirements stated in Section E and Table 8-2.

Commands are to prescribe an appropriate syllabus to accomplish this purpose.

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### **H.4. Air Intercept Training**

Air Intercept training requirements are prescribed in the Air Interdiction Procedures Manual, COMDTINST M3710.3 (series).

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## Section I. Other Periodic Training

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### **I.1. Low-Pressure Chamber (LPC) Training**

All pilots of pressurized aircraft capable of high altitude operations shall attend LPC recurrent training every 12 years. Enlisted aircrew are not required to attend LPC recurrent training.

The date of the LPC course attended shall be recorded in the individual's health record and training jacket.

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### **I.2. Physiological Training**

All aircrew of pressurized aircraft capable of high altitude operations will receive annual aviation physiological training. A Flight Surgeon or an aviation physiologist shall conduct training.

Training shall concentrate on the subject of night adaptation, hypoxia, symptoms of hypoxia, and the importance of immediately donning oxygen equipment. It is expected that at least one (1) hour will be devoted to the subject of hypoxia and the physiological effects of pressurized and unpressurized flight.

Physiological training may be conducted along with other wellness training. Strong emphasis should be placed on the potential negative impact of smoking, caffeine, and alcohol, and the benefits of physical fitness. It is particularly important to emphasize the physiological changes that can be anticipated as the body ages.

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### **I.3. Night Adaptation Training**

If USN or USAF night vision training facilities are available, flight crewmembers should attend such a training course in conjunction with low-pressure chamber training.

The date an individual attends a night vision training course shall be recorded in his health record and training jacket.

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### **I.4. Water Survival Training**

#### **I.4.a. Swim Test**

All aviation personnel on Duty Involving Flying - Operations (DIFOPS) orders or temporary flight orders shall participate in a swim test. During the swim test, the aircrew member must successfully complete a 75-yard swim — while wearing an un-inflated, normally equipped life vest, flight suit (not ADC) and boots — using the crawl stroke, breast stroke, back stroke, side stroke, or a combination thereof.

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*Continued on next page*



## Section I. Other Periodic Training, Continued

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### **I.4.a. Swim Test (cont'd)**

During the swim, the individual shall demonstrate comfort, not necessarily form, in the stroke(s) used.

All helicopter crewmembers shall also practice treading water or drown proofing for a minimum of two minutes.

It is the responsibility of the command to provide this training for all assigned personnel. The intent of this requirement is to ensure that every crewmember (with the exception of CGAS Washington personnel) participates in this training every calendar year.

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#### **NOTE**

The “normally equipped life vest” may be replaced by a training vest with the pocket survival items replaced by two (2) pounds of lead shot.

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### **I.4.b. Wet Drill**

Each calendar year (with the exception of CGAS Washington personnel), the trainee shall receive instruction in water survival techniques, equipment and, wearing flight suit or aircrew dry coverall (ADC), and life vest, shall enter and remain in the water for at least 10 minutes.

An offshore site where moderate sea conditions exist is preferable to a swimming pool, lake, or sheltered harbor since offshore sea conditions are those likely to be encountered in a survival situation.

While in the water, the trainee must inflate the life vest orally; locate and deploy the items of survival equipment it contains, as practicable; and note the effort required to swim and remain in a stable flotation posture in the prevailing water conditions. The trainee shall then enter an LRU-18 one-person raft, or an LRU-20 six-person raft.

For those trainees who fly parachute-equipped aircraft, parachute disentanglement training shall be included.

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#### **NOTE**

Personnel shall not enter the water during any training unless wearing the appropriate level of garment protection for the existing air/water temperature as prescribed in Chapter 4 and Chapter 7 of this Manual.

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*Continued on next page*



## Section I. Other Periodic Training, Continued

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### **I.4.c. 9D5 Training**

Helicopter crewmembers shall attend 9D5 training at least once every 72 months.

Pilots scheduled for an annual Proficiency Course during the quarter in which their 9D5 currency lapses may be granted an extension by the commanding officer (not to exceed 3 additional months), and not to extend beyond that quarter which coincides with the Proficiency Course.

---

### **I.4.d. Egress Breathing Device/Shallow Water Egress Training (SWET)**

Helicopter crewmembers shall attend Egress Breathing Device/Shallow Water Egress Training (SWET) every calendar year.

Extensions not to exceed three (3) additional months are authorized to accommodate scheduling in conjunction with wet drills and swim tests.

If not current, R/W crews must complete SWET training within 60 days of arrival at the unit.

---

### **I.4.e. Refusal to Participate**

Refusal to participate in or complete any of the water survival training requirements is sufficient cause for removal from flight status.

The commanding officer shall submit a letter report regarding the member's refusal, removal from flight status, and termination of designation in accordance with the provisions of the Personnel Manual, with a copy to Commandant (G-OCA).

---

### **I.4.f. Failure to Satisfactorily Complete**

Individuals who fail to fulfill the water survival training requirements (except 9D5/9U44 and Egress Breathing Device/Shallow Water Egress Trainer (SWET) as specified below) shall not fly as a flight crewmember until that requirement is successfully completed. The unit may provide remedial training. The commanding officer shall determine when sufficient remedial training has been provided.

If the individual still cannot complete the water survival training requirements, he or she shall be removed from flight status and their aviation designation terminated in accordance with the Personnel Manual.

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## Section I. Other Periodic Training, Continued

### **I.4.f.(1) 9D5/9U44**

Coast Guard trainees who fail to satisfactorily complete the 9D5/9U44 in accordance with Navy standards shall be provided with a Coast Guard performance evaluation completed by Navy instructor personnel. The form shall be filed in the individual's training record.

Commanding officers shall compare the Coast Guard 9D5/9U44 performance evaluation with the pass/fail criteria listed below and take the action indicated:

#### **I.4.f.(1)(a) Minor Category**

If the reason for failure is in the minor category, the commanding officer may issue a written waiver, citing this Manual as authority, allowing the individual to remain on flight status.

A copy of the waiver shall be filed in the individual's training jacket.

#### **I.4.f.(1)(b) Major Category**

If the reason for failure is in the major category, the individual shall be grounded.

If, in the commanding officer's judgment, the individual can be trained in a reasonable length of time to the competence necessary to subsequently complete the 9D5/9U44 course through remedial swimming training, then that shall be attempted. Otherwise, action should be initiated immediately to remove the individual from flying status.

### **I.4.f.(2) Egress Breathing Device/Shallow Water Egress Training (SWET)**

Although this training is mandatory, failure does not restrict personnel from aviation duties. Personnel who fail must be counseled that, in all likelihood, they will be unsuccessful if they attempt to use the Egress Breathing Device during an actual underwater egress.

Evidence of the failure and counseling must be entered in the person's Aircrew Training Record.

*Continued on next page*



## Section I. Other Periodic Training, Continued

### **I.5. Proficiency Simulator Courses**

Each pilot on DIFOPS orders, for which there is an approved proficiency simulator course of instruction, shall attend such course of instruction annually (within 15 months, day to day, of previous simulator course, transition course or re-qualification course). A First Pilot upgrade syllabus may be completed in conjunction with a proficiency simulator course. Pilots assigned to CGAS Washington shall complete proficiency simulator training semiannually (within 12 months, day to day, of previous simulator course, transition course or re-qualification course).

Commandant (G-OCA) will maintain a list of proficiency simulator courses approved for Coast Guard training.

### **I.6. Emergency Ground Egress Training**

All aviation personnel assigned to air units shall, at least once each calendar year, receive emergency ground egress training in each type aircraft and from each crew position in which a qualification is held.

This training will consist of a lecture on basic principles, followed by actual operation of the exits, and associated equipment.

### **I.7. Operational Hazard Awareness Training**

An operational hazard is any condition or act that affects or may affect the safety of Coast Guard aircraft or associated personnel or equipment. Operational hazards may include, but are not limited to, inadequacies, deficiencies, or unsafe practices in the following areas:

- Weather services and facilities
  - Aircraft maintenance or inspection
  - Operation and maintenance of airfield facilities and services
  - Aircraft ground support services
  - NAVAIDs (en route and approach facilities)
  - Procedures, techniques, and instructions in management of air traffic
  - Regulations, procedures, or policies published by FAA, ICAO, or DoD
  - Flight Publications
  - General and local hazards associated with ground taxi operations.
- Other applicable areas (e.g., low-level wires, remote landing sites, high-density traffic areas, fixed structures, light poles, etc.).

*Continued on next page*



## Section I. Other Periodic Training, Continued

### **I.7.a. Operational Hazard Training Cycle**

Commanding officers shall ensure that local operational hazard awareness training is incorporated into the unit training program to instill personal awareness and to reduce mishap potential. This training shall be provided to all pilots and aircrew members on initial assignment to the unit and annually thereafter.

### **I.8. Land Survival Training**

All aviation personnel assigned to air units should receive training in land survival techniques and equipment every calendar year.

The training received shall be tailored to each unit to suit the terrain, climate, and resources available within the area of operations (AO) most likely to be encountered.

### **I.9. Crew Resource Management (CRM) Training**

Human error mishaps account for approximately 80% of aviation mishap losses in the Coast Guard. CRM training is a valuable tool aimed at reducing human error mishaps by improving individual and crew performance.

#### **I.9.a. CRM Training Skills**

CRM training courses concentrate on improving individual performance and teamwork (crew) skills by emphasizing the following objectives:

- Determining and analyzing ones own personality traits as they relate to aircrew interaction and problem solving
- Improving personal and crew communication skills
- Developing and improving participation as an individual and crewmember in a positive and assertive manner
- Developing and enhancing individual and crew situational awareness skills
- Identifying hazardous trends and attitudes through analysis of past human factor mishaps

Presenting a risk management methodology that can help individuals and crews identify and prevent or mitigate hazardous situations.

*Continued on next page*



## Section I. Other Periodic Training, Continued

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### **I.9.b. CRM Training Schedule**

- Initial CRM training provides an essential cultural foundation by emphasizing the importance of CRM skills. Refresher CRM reinforces initial skills taught and ensures the crewmember's CRM skills mature commensurate with their aviation experience.
- Initial CRM training (two-day course) will be completed within three (3) years of assignment to pilot or aircrew status and recorded in the aircrew member's training record and the AMMIS database. Approved CRM Initial training may be completed by ATC Mobile, ATTC Elizabeth City, NC, the C-130 Standardization Team, or Commandant contracted civilian maintenance or flight training. The USAF Initial CRM Training offered at Little Rock AFB meets the requirements for the Coast Guard Initial CRM Course. The three (3) year initial training window allows unit flexibility and provides new aircrew members an opportunity to obtain actual operational experience before CRM initial training.
- Refresher CRM training is required biennially. Refresher training is now part of the annual pilot proficiency course curriculum at ATC Mobile and some annual Standardization Visits. C-130 pilots (and some aircrew) receive their refresher training at McChord AFB in conjunction with their annual proficiency course. In addition, a CRM refresher course has been developed for presentation by unit FSOs.

### **I.9.c. Failure to Complete**

Aviation personnel failing to complete the CRM Initial Course or CRM Refresher Course on schedule shall request a waiver in writing from Commandant (G-OCA) prior to continuing operational flying.

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## Section J. Special Qualification Requirements

Overview	Shipboard-Helicopter and Air Intercept qualifications are adjunctive qualifications to the pilot designation.
<b>J.1. Shipboard-Helicopter Qualifications</b>	Requirements are specified in the Shipboard-Helicopter Operational Procedures Manual, COMDTINST M3710.2 (series).
<b>J.2. Air Intercept Qualification</b>	Requirements for pilots and Sensor System Operators (SSO) are specified in the Air Interdiction Procedures Manual, COMDTINST M3710.3 (series).



## Section K. Pilot Instrument Qualification

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### **K.1. Authority**

Instrument ratings may be issued or revoked by commanding officers of air stations and by Commandant (G-OCA). Instrument ratings issued by other Military Services have the same validity as Coast Guard issued instrument ratings.

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### **K.2. Effective Period for Instrument Ratings**

The maximum valid period for instrument ratings is 15 months day to day, from the date of the last instrument check.

Pilots are responsible for ensuring that their instrument ratings remain current.

Currency shall be validated by completing a successful instrument check flight and exam before the end of the effective period.

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### **K.2.a. Lapse of Instrument Qualification**

If a pilot's instrument qualification lapses due to failure to successfully complete an instrument check within the effective period, the pilot lapses to unqualified.

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### **K.2.b. Instrument Requalification**

If a pilot's instrument qualification lapses due to failure to successfully complete an instrument check within the effective period, the pilot shall pass an instrument check flight for requalification.

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### **K.3. Classification of Instrument Ratings**

Instrument pilot ratings are issued in two categories - F/W and R/W.

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### **K.4. Validity in Category**

An F/W instrument rating shall be valid in all types of F/W aircraft for which the pilot holds a designation.

An R/W instrument rating shall be valid in all types of R/W aircraft for which the pilot holds a designation.

Instrument ratings remain valid upon PCS.

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*Continued on next page*



## Section K. Pilot Instrument Qualification, Continued

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### **K.5. Minimum Requirements for Instrument Rating**

The following minimum requirements must be met by a pilot before being issued a Coast Guard instrument rating:

- Be a graduate of a military flight training program.
- For initial rating in each aircraft category, satisfactorily complete an instrument flight syllabus in category.
- Complete the written examination prescribed below.
- Complete the instrument flight check prescribed below in each aircraft category for which an instrument rating is to be issued. Instrument check flights may be conducted in ATC Mobile flight simulators.
- Minimum requirements for instrument ratings issued by another Military Service shall be determined by that Service.

---

### **K.6. Instrument Written Examination Requirements**

Before issuance of an instrument rating, all pilots shall complete an open-book written examination covering the following:

- Pertinent Coast Guard instructions and procedures;
- Pertinent Federal Aviation Regulations, other applicable regulations, and pertinent aeronautical publications (e.g., FLIP General Planning);
- Interpretation of weather information normally used in flight planning; and
- Voice radio procedures.

This examination is intended to ensure a thorough and orderly annual review of the subjects listed.

The examination shall cover each reference publication in turn, following the format of the publication.

The examination should include new and revised air traffic control procedures and should be reviewed frequently to ensure currency.

---

### **K.7. Instrument Flight Checks**

Before issue of an instrument rating, all pilots are required to successfully complete an instrument flight check, either in flight or in an approved simulator, in each category in which designated.

All instrument checks shall be conducted by a member of the unit Flight Examining Board or, at the discretion of the commanding officer, an instructor assigned to designated standardization unit, and should consist of at least the following:

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## Section K. Pilot Instrument Qualification, Continued

### K.7.a. Part I

Basic Flying (initial instrument check only). This part shall be given under simulated instrument conditions only and shall include at least the following:

- Timed turns- level, climbing, descending;
- Steep turns; and
- Recovery from unusual attitudes.

### K.7.b. Part II

- Plan and file an actual or simulated instrument flight on airways.
- Perform instrument takeoff.
- Fly an actual or simulated ATC clearance to a destination and execute a published instrument approach.
- Demonstrate ability to satisfactorily fly instrument approaches to minimums, accomplishing at least one Instrument Landing System (ILS) approach, one Precision Approach Radar (PAR) approach, one Automatic Direction Finder (ADF) approach, and one other type of non-precision approach where facilities are available. F/W aircraft instrument flight checks shall include at least one circling approach.
- Demonstrate a thorough knowledge of, and ability to perform a holding pattern.
- Demonstrate a thorough working knowledge of the operation and use of all installed communication and navigation equipment.
- Demonstrate ability to cope with emergency situations that logically might be expected to occur on an instrument flight. Check pilots shall ensure that simulated emergencies do not place the aircraft in a hazardous position. In addition, simulated failures should not be compounded to the point that there is only a remote chance that such failures could occur in actual instrument flight.

### K.7.c. Exceptions

- If a particular maneuver cannot be accomplished due to availability of facilities (e.g., PAR), that maneuver may be waived. However, it shall be performed for a designated Flight Examiner at the earliest opportunity.
- Maneuvers to be accomplished on instrument flight checks conducted by another Military Service shall be determined by that Service.





## Section L. Lapse and Redesignation

### L.1. Lapse

Designations shall lapse as follows:

#### L.1.a. FP and AC

When minimum requirements prescribed by this Manual have not been met, including NVG minimums, designation reverts to CP.

#### L.1.b. CP

When minimum requirements prescribed by this Manual have not been met (including NVG minimums) or six (6) months after the last flight in type, the individual lapses to unqualified.

#### L.1.c. All Other Flight Crewmember Designations

When the minimum requirements prescribed by this Manual have not been met or six (6) months after last flight in type has passed, flight crewmembers lapse to Basic Aircrew member, provided requirements for Basic Aircrew member have been met.

If Basic Aircrew member requirements have not been met, the individual lapses to an unqualified status.

#### L.1.d. Instructors/Flight Examiners

When minimum qualifications prescribed by this Manual have not been met (including NVG minimums), the designation lapse and a requalification must take place as prescribed in Section C of this chapter. Designations also lapse upon PCS transfer. The commanding officer of the gaining unit may accept prior Instructor or Flight Examiner designations that are current without requalification.

### L.2. Failure of Standardization/SAR/Instrument Checks

#### L.2.a. Standardization/Instrument Checks

If an individual fails a standardization or instrument check, the individual lapses to unqualified.

#### L.2.b. SAR Procedures Check

If pilot fails a SAR procedures check, the individual lapses to copilot designation.

*Continued on next page*



## Section L. Lapse and Redesignation, Continued

### L.3. Lapse of Special Qualification

#### L.3.a. Shipboard-Helicopter

When Shipboard-Helicopter qualification lapses, the individual Shipboard-Helicopter qualification lapses to unqualified.

#### L.3.b. Air Intercept

When minimum recurrent training requirements prescribed by this Manual have not been met or six (6) months after the last flight in type has passed, the individual Air Intercept qualification lapses to unqualified. Lapse of Air Intercept qualification has no effect on the pilot or HU-25C sensor systems operator designation.

### L.4. Redesignation

#### L.4.a. General

If a flight crewmember's designation lapses, he or she shall not be assigned the duties of the lapsed designation.

#### L.4.b. Lapse Due to Failure to Meet Minimum Requirements

If a flight crewmember's designation lapses due to a failure to meet the minimum requirements, a designation check flight, which encompasses the incomplete maneuvers, is required for redesignation.

#### L.4.c. Failure of Standardization/SAR Procedures/ NVG Instrument Check

If a flight crewmember's designation lapses due to failure of standardization, SAR procedures, NVG, or instrument check, the individual shall receive additional training in the area(s) of deficiency and shall pass a check flight for redesignation.

#### L.4.d. Lapse Due to No Flights Within Previous Six Months

If a crewmember's designation lapses due to no flights within the previous six (6) months, a designation check flight is required for redesignation

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## Section L. Lapse and Redesignation, Continued

### **L.4.e. Lapse Due to No Flights Within Previous Year**

If a crewmember has no flights within one (1) year, the individual must follow the below requalification process for each aircraft type as follows:

⇒ All pilots must complete a Commandant (G-OCA) approved requalification course

⇒ C-130 Aircrew - Refer to C130 Flight Manual, Appendix A, Table A-1, Flight Crewmember Requalification Chart

⇒ HU-25 Aircrew - Must complete the entire ground and flight phase of the appropriate aircrew syllabus to become requalified.

⇒ HH-65/HH-60 Aircrew - Must complete the ground phase and abbreviated syllabus to become requalified as a Flight Mechanic. There is no abbreviated course for the Basic Aircrew

### **L.4.f. Additional Requirements**

Commanding officers may prescribe additional training before redesignation.

### **L.4.g. Pilot Designation Lapse Due to Duty Including Flying — Denied (DIFDEN)**

Pilots ordered to DIFOPS/DIFPRO assignments that have lapsed due to no flights within one (1) year because of DIFDEN assignments shall complete a Commandant (G-OCA) approved requalification course.

### **L.4.h. Lapse of Air Intercept Qualifications**

An Aircraft Commander or HU-25C SSO whose Air Intercept qualification has lapsed must complete an Air Intercept flight evaluation before redesignation.

The individual may also be required to repeat those portions of the initial qualification syllabus prescribed by the commanding officer.



## Section M. Approved Simulators

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### M.1. Overview

The ATC Mobile Flight Simulators for the HH-60, HH-65, and HU-25 are authorized simulators for purposes of this Manual; the HH-60 flight simulator is an authorized NVG compatible simulator.

Flight simulators operated by the Air Force, Navy, Marine Corps, and those approved by the FAA for the C-130, VC-4, and the C-37 are authorized simulators for purposes of this Manual.

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## **Section N. Coast Guard Aviator Evaluation Board**

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### **N.1. Convening the Board**

The Coast Guard Aviator Evaluation Board is convened by Commandant on an “as needed” basis. When necessary, the Board evaluates the performance, potential, and motivation for continued service in flight status of Coast Guard aviators. The Board acts in an advisory capacity to the Commandant, and its actions are non-disciplinary in nature. Normally, only the more aggravated cases will be considered by the Board. Specific information concerning this Board can be found in the Personnel Manual, COMDTINST M1000.6 (series).

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### **N.2. Submission of Reports for Consideration by Board**

In the event that a commanding officer develops serious doubts as to a pilot’s performance, potential, or motivation, he or she shall make a thorough investigation and, if warranted, report the results by letter to the Commandant (G-P) in accordance with the Personnel Manual M1000.6 (series).

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## Section O. Duties and Responsibilities of Standardization Units

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### O.1. General

Standardization units are designated to ensure a high degree of standardization in all procedures performed by flight crewmembers. Coast Guard Aviation standardization units are as follows:

- HH-60, HH-65, HU-25, C-130 (remotely located at CGAS Clearwater), Shipboard-Helicopter, Rescue Swimmer: ATC Mobile.
  - Airborne Use of Force: HITRON
- 

### O.2. Standardization

Standardization personnel at each standardization unit are responsible for, but not limited to, the following:

- Defining the duties of each crewmember designation.
  - Defining the skills necessary to complete each defined duty.
  - Developing standard procedures to use in the completion of each duty.
  - Determining the performance standards required by the flight manual, and ensuring that these additional performance standards are promulgated to all appropriate units.
  - At the direction of Commandant (G-OCA), conducting evaluations of air station standardization programs. Representatives of the standardization units shall make periodic visits to operating units to:
    - Check the unit's adherence to standard operating procedures.
    - Evaluate the flight crew training program.
    - Ensure desired skills and standard procedures are taught.
    - Provide refresher training and enhance the professional knowledge of the unit's flight crewmembers.
    - Provide reports to air unit commanding officers.
  - If deficiencies in training syllabi or courses are noted during unit visits, standardization personnel shall coordinate with Commandant (G-OCA) and others involved in the training process to make appropriate corrections.
  - Reviewing and recommending the initial content of standardized Coast Guard Institute training courses for initial and specialty designations. Determining content of standardized training syllabi for use as part of these courses.
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## **Section O. Duties and Responsibilities of Standardization Units, Continued**

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### **O.2. Standardization (Cont'd)**

- Developing and maintaining, for approval by Commandant (G-OCA), standardized designation, upgrade, and recurrent flight training syllabi, which are not otherwise provided by the Coast Guard Institute or other approved sources, for all flight crewmembers.
  - Recommending appropriate changes to Institute courses and/or syllabi as individual aircraft flight manuals change.
  - Developing a standardized flight evaluation check for each designation to be used during the airborne portion of the annual standardization check.
  - Maintaining close liaison with other units and agencies that operate similar aircraft and have comparable flight crew designations.
  - Assisting in the review and preparation of changes to flight manuals for type aircraft.
  - Recommending additions or deletions of various equipment to enhance the operational efficiency and safety in type aircraft.
  - Assisting in the review of aircraft configuration changes.
  - Assisting in the review of aircraft accident analysis.
  - Maintaining an ongoing evaluation and certification program of aerial delivery equipment.
-







## CHAPTER 9: RECORDS AND REPORTS

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## Chapter 9. Records and Reports

### Overview

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#### Introduction

Consistent management and logging of records is essential to the administration of the aviation program. This chapter provides reporting requirements and guidance for record keeping.

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#### In this chapter

This chapter is divided into nine sections:

- Aviation Maintenance Management Information System (AMMIS)
  - Logging of Flight Time
  - Flight Pay Entitlement Requirements
  - Classification of Flights by Coast Guard Aircraft
  - Aircraft Flight Record (CG-4377)
  - Aviators Flight Log Book
  - Change of Pilot Designation and Qualification
  - Abstract of Operations Report
  - Miscellaneous Records and Reports
-



## **Section A. Aviation Maintenance Management Information System (AMMIS)**

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### **A.1. Overview**

AMMIS is the prescribed database in which flight data is stored. Reports of aircrew recurrent training as well as aircraft utilization are available through the AMMIS database.

Each air station is responsible for the timely and accurate entry of data into AMMIS. Furthermore, due to the sensitive and important nature of the information stored in the database, each unit must ensure security and limited access for the database.

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## Section B. Logging of Flight Time

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### B.1. Overview

The following instructions pertain to recording and logging of flight time:

- Only pilots designated in type, or engaged in an authorized pilot training syllabus, may log pilot time in that type aircraft.
- Night and instrument time shall be logged simultaneously with FP or CP time.
- All flying time computations shall be made in hours and tenths of hours.

See Appendix H of this manual for specific guidance on logging of flight time in the Aviator's Logbook.

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## Section C. Flight Pay Entitlement Requirements

<b>C.1. Overview</b>	The following paragraphs provide guidance for aviation unit flight pay management.
<b>C.2. Applicable Directives</b>	<p>The following are applicable directives for aviation unit flight pay management:</p> <ul style="list-style-type: none"> <li>• U. S. Coast Guard Pay Manual, COMDTINST M7220.29 (series)</li> <li>• Management and Administration of Aviation Incentive Pays, COMDTINST 7220.39 (series)</li> <li>• Personnel Manual, COMDTINST M1000.6 (series)</li> <li>• Personnel Pay Procedures Manual, PPCINST M1000.2 (series)</li> <li>• SDA User/Query Manual, PPCINST M5230.1 (series)</li> <li>• Other directives promulgated by Commandant to govern the flight pay system.</li> </ul>
<b>C.3. Administration</b>	
C.3.a. Instructions	Detailed instructions on issuance of flight orders and management and administration of aviation incentive pay are provided in applicable Coast Guard directives.
C.3.b. Syllabus Completion	A flight crewmember may not be placed on flight orders, marking eligibility for flight pay, until at least the initial aircrew training syllabus ground portion is complete.
C.3.c. Tracking Flight Time	All members in flight pay status should track individual flight time. All members should keep personal logs of individual flight time, giving emphasis to tracking bank and grace periods.
C.3.d. Administrative Oversight	Administrative oversight shall document in writing such actions as involuntary removal from flight orders, flight related injuries or incapacitation and change of crewman status at the time of each occurrence.

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## Section C. Flight Pay Entitlement Requirements, Continued

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### C.4. Training

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#### C.4.a. Flight Pay Training

Units shall conduct periodic flight pay training for all current and potential personnel on flight orders. Members on flight orders should be provided detailed instructions concerning their responsibilities for maintaining a personal flight time log. In addition, they should be instructed to inform the unit flight pay system manager when the member believes he/she has been underpaid or overpaid ACIP/HDIP.

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#### C.4.b. Aircraft Flight Record Preparation Training

Units shall conduct periodic training for all pilots on Aircraft Flight Record (CG-4377) preparation.

---

### C.5. Command Responsibilities

The command must:

- Be responsible for unit flight pay administration in accordance with applicable Coast Guard directives.
  - Advise all members on flight orders, in writing, when they are in a grace period, including the number of hours required to successfully complete the grace period without loss of pay.
  - Establish a unit flight pay audit team to conduct a quarterly audit of all flight pay records in accordance with applicable directives.
  - Review Aircraft Flight Record (CG-4377 Part II) preparation and handling to ensure that data is legible, correct, complete and properly safeguarded.
  - Ensure that all pertinent data is accurately entered into the AMMIS database.
  - Assign one or more unit flight pay system managers, who will be trained to perform these duties.
-



## **Section D. Classification of Flights by Coast Guard Aircraft**

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### **D.1. Overview**

Classification of flights by Coast Guard aircraft is for use in the preparation of the Abstract of Operations and to assist the Commandant in planning for the effective utilization of aircraft.

All flights of Coast Guard aircraft shall be classified by employment categories. The number of missions, resource hours, and employment hours shall be recorded in each employment category.

The appropriate code for each category corresponding to the sections of the Abstract of Operations, shall be recorded in the Aircraft Flight Record (CG-4377) and other reports in which flight classifications are required.

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## Section E. Aircraft Flight Record (CG-4377)

### E.1. Overview

The Electronic Aircraft Logbook (EAL) or Aircraft Flight Record (CG-4377) shall be used by all Coast Guard aviation units to record flight data (as appropriate). The Aircraft Flight Record is a three-part form, partially pre-carboned, multi-colored, and designed to fulfill several requirements.

When completed, Part I provides permanent preflight and local clearance information.

Part II is the Flight Record and is used for recording all operational information concerning the flight.

Part III is the maintenance record for the aircraft.

### E.2. Instructions for Completing the Aircraft Flight Record

All entries on the Aircraft Flight Record shall be made with a ball-point pen and shall be used as the only basis for entries in the aviator's flight log, aircraft logs, reports of aircraft time and crewmember's individual flight time unless the EAL is used to record the information.

#### E.2.a. Part I — Preflight and Local Clearance

All entries are self-explanatory. Before each flight, this part must be signed by the person performing the preflight, the person performing the servicing, the person responsible for the aircraft weight and balance (loading), and by the pilot in command (PIC).

Completed Part I forms shall be retained for 90 days, after which they may be discarded.

*Continued on next page*



## Section E. Aircraft Flight Record (CG-4377), Continued

### E.2.b. Part II — Flight Record

This part is the official record of the flight that shall be signed by the PIC unless the PIC uses the EAL to record the flight information.

The PIC shall ensure that entries are correct, neat and legible. All changes shall be initialed by the PIC.

Part II records will include, at a minimum, the following specific flight details:

- The aircraft type and tail number,
- Dates and hours flown (all times will be in UTC),
- Point of origin,
- En route stops,
- Destination,
- List of all personnel logging individual flight time,
- Names and status of all passengers, and
- A flight narrative.

### E.2.b.(1) Personnel

Flight crewmembers, technical observers, and other mission-essential non-crewmember personnel on flight orders shall be listed in the “Pilots and Crew Members” section; overflow shall be annotated and recorded in similar fashion on the reverse side of the sheet.

These personnel shall be listed by their names and the last four numbers of their Social Security Numbers (SSNs).

All other personnel onboard (e.g., non-aircrewmembers, non-mission-essential personnel, orientation participants) shall be listed in the “Passenger Data” section (or on an attached passenger manifest, if used), and may not log flight time.

### E.2.b.(2) Passengers

When transportation of passengers is involved, such reasons as official business, official transportation, etc., shall not be used, as they are insufficient to support the determination that aircraft are being used for official purposes.

*Continued on next page*



## Section E. Aircraft Flight Record (CG-4377), Continued

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### E.2.b.(3) Guidelines

The following guidelines for completion of the flight record shall be followed:

- Utilization data and deployment data shall be completed in accordance with the current instructions for the Abstract of Operations, COMDTINST 3123.7 (series).
- Special care must be taken to ensure that employment category codes are selected which accurately reflect the mission area being supported by the flight. For example, transport of strike team personnel to an oil spill site should be coded marine environmental protection, or transport of parts to repair a resource involved in a search and rescue case should be coded search and rescue.
- Deployment data is the NMC time, days away, and shipboard operating hours accumulated on that aircraft for the entire deployment. It is entered only on the last flight record of the deployment.
- When passenger transportation is the primary purpose of the flight, the cost comparison (if required) and further required approval documentation shall be attached to the flight record.

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*Continued on next page*



## Section E. Aircraft Flight Record (CG-4377), Continued

### E.2.c. Review of Part II by Operations Department

The operations officer (or his designate) shall review the flight record for completeness and clarity and shall initial in the “Approved By” block. Blanks are provided for initials when data is transcribed for other uses.

Each air unit having custody of aircraft shall maintain a bound chronological file of completed Part II forms for each aircraft in the reporting custody of the unit.

Any single aircraft or group of aircraft physically separated from its parent unit shall maintain a separate chronological file of completed Part II forms.

When the period of detached duty is ended, or monthly (whichever occurs first), this file shall be returned to the parent unit for binding into its file. The following general rules apply:

- No flight record shall be entered in the file of more than one unit.
- Completed Part II forms shall be inserted each month in a permanent binding.
- The commanding officer will enter monthly, on a sheet appropriate to the binding method, the period and record numbers certified (beginning with date of last certification) and his signature.
- The file of completed Part II forms is normally unclassified but such classification as appropriate shall be assigned.
- The file of completed Part II forms shall be retained for seven years, after which it may be discarded.

### E.2.d. Part III — Maintenance Record (Pilot Entries)

This part is used to record data necessary to maintain the aircraft, engine, and accessory logs and to record maintenance information. The PIC shall make the following entries at the completion of each flight:

- Aircraft grounded or safe for next flight by circling the UP (safe) or DOWN (grounded) arrow as appropriate.
- Indicate whether engine hours were the same as flight hours; if not, specify difference.
- Mark continuation on page 4 if there are more than four discrepancies to enter.
- Total landings in each category.
- Discrepancies, using one block per discrepancy and, in the case of a grounding discrepancy, inserting an “X” before the discrepancy and noting the time.

*Continued on next page*



## Section E. Aircraft Flight Record (CG-4377), Continued

### NOTE

If there are no discrepancies, insert NONE in the first discrepancy box.

E.2.e. Part III —  
Maintenance Record  
(Maintenance  
Personnel Entries)

Detailed instructions for completion of the remainder of Part III - Maintenance Record by engineering personnel are contained in the Aeronautical Maintenance Management Manual, COMDTINST M13020.1 (series).

E.2.f. Numbering of  
Flight Records

Flight records shall be numbered as follows:

- 1st and 2nd digits - number of month
- 3rd and 4th digits - calendar year
- 5th and subsequent digits - consecutive monthly flight record numbers

E.2.g. Certification  
of Flight Records

Monthly certification of flight records shall conform with the following sample format:

April 1993  
U.S. COAST GUARD AIR STATION  
PALM HARBOR, FLORIDA

### FLIGHT RECORD CERTIFICATION

Flight Records 04-93-1 through 04-93-142 comprise the records of all flights performed by aircraft attached to this unit from 1 April 1993 through and including 30 April 1993.

G. A. ZEBO  
Commanding Officer



## Section F. Aviators Flight Log Book

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### F.1. Overview

Each Coast Guard aviator, student aviator, and other pilots assigned to a Coast Guard unit (e.g., exchange pilots) shall maintain a complete record in an Aviators Flight Log Book. The current log book published by the U.S. Navy shall be used. The log book comprises an official government record.

All individual flight time in military aircraft shall be logged in this book. Individual flight time in other government aircraft and in contractors' aircraft, when authorized by Commandant (G-OCA), shall also be logged in this book. No other flight time shall be logged.

Simulator time and simulator approaches shall be logged on separate pages from flight time in the Aviators Flight Log Book. Simulator time may be included in total accumulated flight time. Simulator time and approaches may be counted towards meeting semiannual minimums as provided for in Chapter 8 of this Manual.

See Chapter 8, Paragraph A.9.b, for other log book entries. See Appendix H for guidance on filling out the Aviators Flight Log Book.

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### F.2. Flight Log Book Repository

Current flight log books shall not be carried in the aircraft, but shall be kept in a common repository within an area under the cognizance of the unit operations officer.

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### F.3. Ownership of Flight Log Book

Flight log books become the personal property of the individual upon separation from the Coast Guard. Flight log books of deceased personnel shall be handled in accordance with instructions governing disposition of Coast Guard records.

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### F.4. Violation/Mishap Entries

Each violation of flying regulations and each aircraft mishap where pilot factor is determined to be a cause shall be entered in the Accident and Flight Rule Violation Record of the logbook of the pilot concerned when directed by Commandant (G-OCA). The findings of an Administrative Investigation shall normally be the basis for such an entry.

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## Section F. Aviators Flight Log Book, Continued

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### F.4.a. Purpose

Entries in the Pilots Accident and Violation Record are not to be considered punitive. This record merely furnishes commanding officers with information concerning an individual pilot's mishap record or violations of flying regulations.

---

### F.4.b. Inserted Information

The information to be inserted in the Pilot's Accident and Violation Record shall be specified by Commandant (G-OCA).

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### F.5. Review/Approval

The commanding officer (or his/her designate) shall review, approve the flight time record, and sign the Accident and Flight Violation Record of an Aviators Flight Log Book in the following circumstances:

- Upon PCS of the aviator
- Upon PCS of the commanding officer
- Upon direction of Commandant (G-OCA) to insert an entry in the Aviators Accident and Flight Violation Record
- At the end of each semiannual period

Negative entries are required.

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## **Section G. Change of Pilot Designation and Qualification**

### **G.1. Overview**

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Units shall report changes to pilot designations and ship-helicopter qualifications in accordance with the provisions of the Coast Guard Human Resource Management System (CGHRMS).

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## **Section H. Abstract of Operations Reports**

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### **H.1. Overview**

These include CG-3273A, CG-3273B, and CG-3273C (RCS G-OP-2002AV, G-OP-2002, and G-OP-2001, respectively). Abstract of Operations Reports shall be prepared in accordance with COMDTINST M3123.7 (series).

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## Section I. Miscellaneous Records and Reports

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### **I.1. Aircraft Mishap Reports**

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**I.1.a. Safety Analysis**     Aircraft accidents, incidents, and ground accidents shall be reported in accordance with the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

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**I.1.b. Legal Investigation**     Investigations of aircraft incidents and ground accidents shall be conducted in accordance with Military Justice Manual, COMDTINST M5810.1 (series).

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### **I.2. Reporting Actual or Near Midair Collisions**

A midair collision is an incident where two or more aircraft actually collide.

A near midair collision is an incident where a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft (excluding normal formation or air intercept flight), or a report is received from a pilot or a flight crewmember stating that a collision hazard existed between two or more aircraft.

A serious near midair collision is an incident where a possibility of a collision occurs, and evasive action and/or bodily injury occurs as a result.

---

**I.2.a. Statements**     Statements which might indicate responsibility for a midair collision or near midair collision shall not be made before completion of the investigation.

Voluntary statements to the press are not encouraged. If any statement is given to the press, it shall be limited to the known facts concerning the incident.

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## Section I. Miscellaneous Records and Reports, Continued

### I.2.b. Voice Report

A pilot experiencing a near, serious near, or actual midair collision shall make an immediate voice report to the nearest FAA communications facility. Items to be reported are:

- Date and Time (UTC) of incident;
- Location of incident and altitude;
- Identification and type of reporting aircraft, aircrew destination, name and home base of pilot; and
- Identification and type of other aircraft, aircrew destination, name and home base of pilot.

### I.2.c. Reporting Responsibility to the FAA

The following information shall be reported to the FAA for all actual and near midair collisions:

- Type of flight plan;
- Station altimeter setting used;
- Detailed weather conditions at altitude or flight level.;
- Approximate courses of both aircraft, indicating if one or both aircraft were climbing or descending;
- Reported separation in distance at first sighting, proximity at closest point horizontally and vertically, and length of time in sight prior to evasive action;
- Degree of evasive action taken, if any (from both aircraft, if possible); and
- Injuries, if any.

Safeguarding of the Cockpit Voice/Flight Data Recorder information upon landing for subsequent investigation may be warranted.

### I.2.d. Reporting Responsibility to the Coast Guard

In addition, the following guidance applies:

#### I.2.d.(1) Midair Collisions

Regardless of the amount of damage, midair collisions shall be immediately reported to Commandant (G-WKS) or Coast Guard Headquarters Command Center (G-OPF) via telephone.

A preliminary message of report shall be submitted within four hours of the incident, using the guidelines in the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).

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## Section I. Miscellaneous Records and Reports, Continued

I.2.d.(2) Near Midair Collisions	Near midair collisions shall be treated as aviation flight-related Class D Mishap for safety reporting requirements.
I.2.d.(3) Serious Near Midair Collisions	Make a report of details, as soon as practicable, to Commandant (G-OCA) or Coast Guard Headquarters Command Center (G-OPF) via telephone, followed by a message of report to Commandant (G-WKS) within 72 hours.
I.2.d.(4) NTSB Involvement	Commandant (G-WKS) will request NTSB participation in all investigations of actual midair collisions between Coast Guard and non-Coast Guard aircraft.
<b>I.3. Report of Aviators Failing to Meet Flight Minimums or Instrument Qualification Requirements</b>	Commanding officers of aviation units shall submit reports of aviators failing to meet flight minimums or instrument qualification requirements as prescribed in Chapter 8 of this Manual.
<b>I.4. Check Flight and Qualifications Records</b>	Unit Flight Examining Boards shall maintain records of all check flights administered and qualifications issued or renewed.
<b>I.5. Aircrew Training Records</b>	Aircrew training records shall be maintained as prescribed in Chapter 8 of this Manual.
<b>I.6. Senior Federal Travel Report</b>	Commanding officers of aviation units shall submit the report as prescribed in Chapter 5, Section F, of this Manual.
<b>I.7. Shots Fired from Coast Guard Aircraft Report</b>	Commanding officers of aviation units shall submit the reports as prescribed in Chapter 4, Section R, of this Manual.



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## Section A. Introduction

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### A.1. Overview

This appendix provides the basic format for a standard organization of Coast Guard air units. It also sets forth the minimum requirements for organizing, administering, and operating such units. This format should be modified only when necessary to meet individual unit requirements. Commanding officers of air units shall promulgate the organization manuals for their air unit. The first chapter shall cover any general principles desired, including the mission of the unit, and any other general information appropriate to the scope of the chapter. The second chapter shall cover department organization and detailed duties. The third chapter shall cover watch organization as developed for the unit. The fourth chapter shall cover the system of unit orders and instructions. Additional chapters are authorized as necessary.

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## **Section B. General Organizational Principles**

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### **B.1. Overview**

Coast Guard air units shall be organized and operated in accordance with the basic principles contained in The Coast Guard Organization Manual, COMDTINST M5400.7 (series), and United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series).

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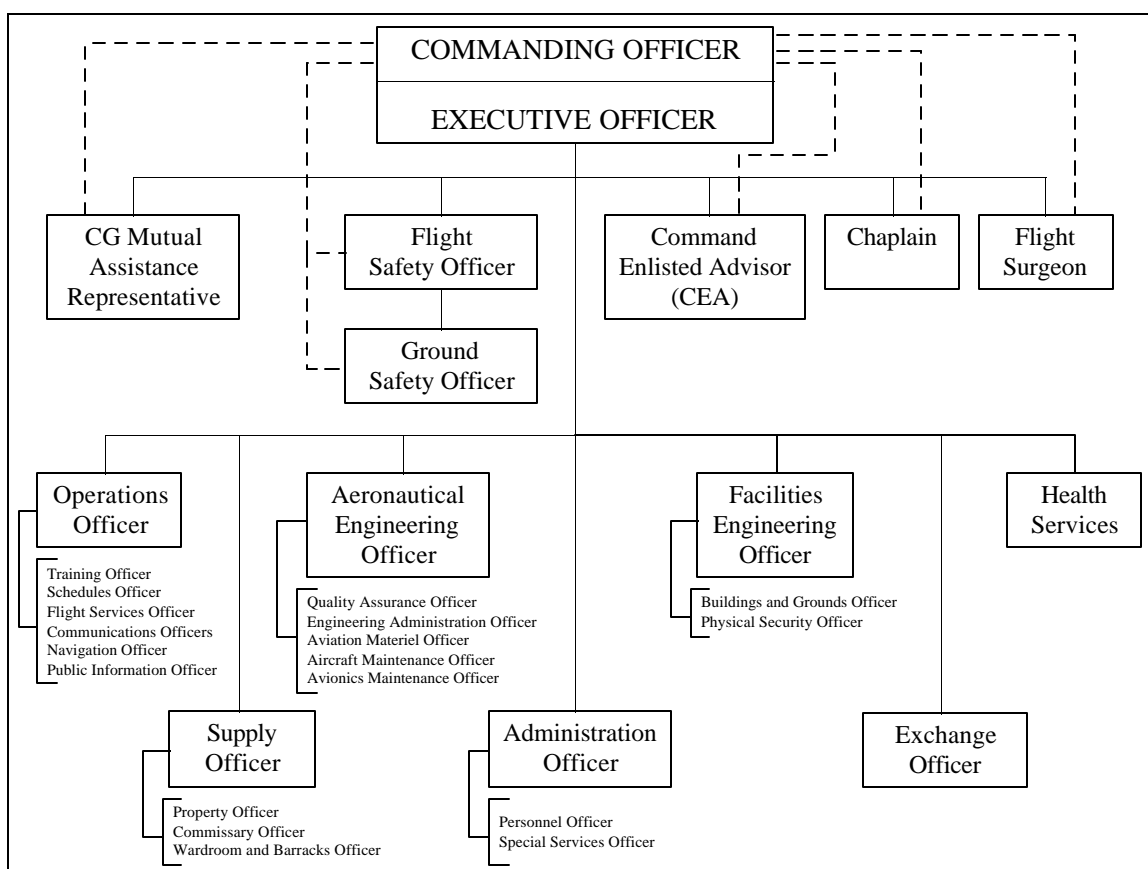
## Section C. Standard Unit Organization

### C.1. Standard Organization

Figure A-1 provides a standard organization for air units. All functions of the unit must be stated in the unit's organizational chart. Air units are authorized to make additions and deletions of functions and duties where necessary. However, horizontal changes in the existing chart should be avoided. The size of the unit and local conditions (physical layout, personnel allowance, type of aircraft, communications, and other factors) determine any necessary changes. Collateral duties or other duties peculiar to an individual unit may be added to the organizational chart without changing its effectiveness or its basic purpose.

### C.2. Department Heads

Department heads shall be commissioned officers or warrant officers. The commanding officer shall designate department and assistant department heads in writing.





## Section D. Duties

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### D.1. Commanding Officer

Personnel who report directly to the commanding officer are indicated by a dotted line in Figure A-1. The duties of the commanding officer are as follows:

- Perform the duties of the commanding officer as specified in Coast Guard Regulations.
- Be responsible for the administration and direction of all activities of the unit.
- Monitor flight proficiency and training of all assigned flight crewmembers, and ensure that personnel assigned to operational flight duty meet all appropriate minimum recurrent training requirements.
- Monitor the accuracy of Aviation Career Incentive Pay (ACIP), Hazardous Duty Incentive Pay (HDIP), and Special Duty Assignment Pay (SDAP) paid to eligible assigned personnel. Assign one or more flight pay system manager(s) to assist in this effort.

---

### D.2. Executive Officer

The duties of the executive officer are as follows:

- Perform the duties of an executive officer as specified by Coast Guard Regulations.
- Assist the commanding officer generally in administration of the functions of the unit.
- Act as senior member of the Station Safety Board.
- Supervise the Master-At-Arms (MAA). The Master-At-Arms shall be a senior petty officer designated by the executive officer. The MAA shall perform those duties as specified by Coast Guard Regulations.

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### D.3. Coast Guard Mutual Assistance Representative

The Coast Guard Mutual Assistance Representative administers the Mutual Assistance Fund in accordance with applicable directives.

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## Section D. Duties, Continued

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### D.4. Flight Safety Officer

The duties of the flight safety officer are as follows:

- Assist and advise the commanding officer in matters pertaining to flight safety.
- Act as a member of the Station Safety Board and the Aircraft Mishap Analysis Board.

---

### D.5. Ground Safety Officer

The duties of the ground safety officer are as follows:

- Assist and advise the commanding officer in matters pertaining to ground safety.
- Coordinate the application of and unit conformance with safety and environmental standards.
- Act as a member of the Station Safety Board.

---

### D.6. Chaplain

The duties of a Chaplain are:

- Perform the duties of chaplain as specified in Coast Guard Regulations.
- Assist the commanding officer in promoting unit well-being.

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### D.7. Command Enlisted Advisor

A Command Enlisted Advisor (CEA) does the following:

- Performs the duties of CEA.
- Assists the commanding officer as an advocate of enlisted member morale and well-being.

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## Section D. Duties, Continued

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- D.8. Flight Surgeon** The duties of the flight surgeon are:
- Thoroughly understand all operational missions of the unit and routinely participate as a crewmember on each of these missions.
  - Be familiar with the operational missions of other Coast Guard units in the local area.
  - Have a general understanding of the flight characteristics of the aircraft assigned to the unit and be thoroughly familiar with the human factors involved in pilot and crewmember interaction with the aircraft.
  - Be familiar with this Manual and the Shipboard-Helicopter Procedures Manual, COMDTINST M3710.2 (series) (if assigned to a unit which deploys helicopters), with specific emphasis on rescue and survival equipment, flotation equipment, protective clothing, oxygen equipment, and flight safety.
  - Ensure that aviation personnel are physically and psychologically fit for flight duty.
  - Perform physical examinations on all aviation personnel in accordance with the Medical Manual, COMDTINST M6000.1 (series). The flight surgeon shall make recommendations to the commanding officer concerning the medical status of aviation personnel and issue grounding and up notices for final approval by the commanding officer.
  - Maintain an active interest and participation in the station flight safety program.
  - When required, participate as medical member of Aircraft Mishap Analysis Boards. In this regard, the FS is responsible for completion of the Medical Officer's Report in accordance with the Safety and Environmental Health Manual, COMDTINST M5100.47 (series).
  - Serve as advisor to the command on matters of occupational health and safety.
  - Actively participate in the unit aviation physiology training program to ensure that all aviation personnel are capable of satisfactorily coping with the hazards of flight. Conduct lectures and demonstrations on aviation physiology.
  - Advise the command on MEDEVAC operations. Participate, as required, on MEDEVAC missions.
  - Participate in a program of continuing education in aviation medicine to include familiarity with information published for flight surgeons by the other branches of the Armed Forces.
- 

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## Section D. Duties, Continued

### D.9. Operations Officers

The duties of the operations officer are as follows:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Coordinate and control movements of aircraft and boats (and vehicles, when operationally employed). Establish fuel loadings for aircraft and boats.
- Maintain aircraft and station emergency bills.
- Administer the program of operational readiness of aircraft and associated equipment.
- Manage and direct training of pilots and aircrew. Coordinate training syllabi, both flight and ground, in accordance with pertinent Commandant's directives.
- Provide flight, communications, weather, navigation, and public information services as required.
- Supervise Flight Examining Board and Crypto Board.

### D.10. Training Officer

The duties of the training officer are as follows:

- Assist the Head, Operations Department in planning, coordinating, and executing unit training program.
- Prepare unit training courses.
- Procure and maintains unit training aids.
- Maintain unit personnel training jackets.

### D.11. Standardization Officer

The duties of the standardization officer are as follows:

- Advise Commanding Officer and Operations Officer on flight training and standardization issues.
- Manage pilot and aircrew training and standardization programs.
- Maintain unit pilot training records
- Organize and chair unit Flight Standards Board and Flight Examining Board.
- Maintain pilot upgrade and recurrent training syllabi.

### D.12. Schedules Officer

The schedules officer prepares the daily flight schedule and pilot and operations duty officer watch schedules.

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## Section D. Duties, Continued

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### D.13. Flight Services Officer

The duties of the flight services officer are as follows:

- Provide services and equipment for search and flight planning.
- Provide access to weather briefing, aircraft clearance, and air traffic control services.
- Maintain weight and balance records, flight logs, reports, and records.
- Maintain read and initial file.
- Maintain sufficient records to enable the preparation of such reports as the operations officer may require.

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### D.14. Communications Officer

The duties of the communications officer are as follows:

- Provide communications services.
- Supervise the communications center and handling of message traffic.
- Administer communications procedures and training.
- Provide control of classified material and cryptographic devices.

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### D.15. Navigation Officer

The duties of the navigation officer are as follows:

- Provide charts, publications, navigation equipment, and records.
- Maintain flag locker.
- Maintain Area Navigation (RNAV) database.

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### D.16. Public Information Officer

The duties of the public information officer are as follows:

- Provide public information services, including videos, slides, projectors, and articles cleared for release to the public.
- Provide photographic services.
- Establish channels and procedures for spot news coverage.

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## Section D. Duties, Continued

### **D.17. Auxiliary Aviation Liaison Officer**

The duties of the Auxiliary Aviation Liaison Officer (AUXLO) are as follows:

- Provide managerial oversight to the Auxiliary Aviation program in regards to recurrent training, Auxiliary Pilot, Aircrew and Observer qualification programs, survival equipment, etc.
- Ensure the Air Station and District Command Centers are aware of the Auxiliary Aircraft schedules and operations.
- Coordinate all Auxiliary patrols with the regional/squadron Auxiliary Aviation Coordinator (AAC).
- Mentor Auxiliary Pilots and Observers by overseeing the Auxiliary Aviation program as directed by the Auxiliary Aviation Program, COMDTINST 16798.1 (Series).
- Provide input to the Operations Officer on Auxiliary Aviation capabilities during operational or contingency planning.
- Act as the primary point of contact for connectivity between the Auxiliary District Aviation Board, Auxiliary Flight Examining Board, District Staff Officer – Aviation (DSO-AV), and the Coast Guard.
- Assist the Flight Safety Officer in any Auxiliary aircraft mishap investigation.
- Ensure radio log contains entries for each Auxiliary mission.
- Ensure all necessary reports (safety patrols, logistics, SAR and MEP flights), log entries, statements and notifications concerning Auxiliary missions and mishaps are completed and forwarded as applicable.
- As applicable, provide the duty FS with a ration count (CG-3123) for the meals consumed by Auxiliarists under orders.

Establish channels and procedures for spot news coverage.

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## Section D. Duties, Continued

### **D.18. Aeronautical Engineering Officer**

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The aeronautical engineering officer shall:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Manage the Aeronautical Engineering Department and be responsible to the commanding officer for the maintenance of aircraft, associated equipment and facilities.
- Administer the Aeronautical Engineering Department in accordance with controlling directives.
- Coordinate maintenance scheduling with Operations Department requirements.
- Establish programs for fuel and oil contamination prevention, foreign object damage prevention, and corrosion control.

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## Section D. Duties, Continued

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### **D.19. Quality Assurance Officer**

The duties of the quality assurance officer are as follows:

- Ensure the quality of maintenance of the unit's aircraft.
- Maintain a master library of all technical publications and directives; review all incoming technical publications and directives to determine their applicability to quality assurance; assist in preparation of local maintenance instructions; and ensure that each shop has available all current publications applicable to its work area.
- Review work orders, inspection sheets, aircraft maintenance records, and all logs and records pertaining to the aircraft for recurring discrepancies.
- Ensure that established and adequate procedures are observed for conducting ground tests and routine and special inspections. Perform spot quality inspection checks. Ensure that current standard procedures are observed by maintenance personnel in the repair and bench testing of components.
- Ensure all work guides, check-off lists, work cards, and maintenance forms used to define or control maintenance are complete and current.
- Participate in maintenance flights and ensure that pilots and crews are briefed before maintenance flights so that the purpose and objectives of the flights are clearly understood.
- Ensure that modifications to aircraft and aircraft components have been incorporated and ensure that support equipment meets calibration and safety requirements.
- Review Unsatisfactory Reports of Aeronautical Material (URs) and CG-5071s (Aviation Electronics Maintenance Record) for trends to determine when discrepancies in any area are increasing or exceeding normal limits.
- Approve or reject completed work based on appropriate standards.
- Spot check equipment received for use, or returned for repair, to ensure that its condition, identification, packaging, preservation and configuration are satisfactory and, when applicable, that shelf life limits have not been exceeded.
- Establish qualification requirements for quality assurance inspectors and collateral duty quality assurance inspectors. Review the qualifications of personnel assigned to these positions and maintain a record of all designated inspectors.

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## Section D. Duties, Continued

### **D.20. Engineering Administration Officer**

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The duties of the engineering administration officer are:

- Provide administrative and clerical services for the Aeronautical Engineering Department; establish and control a system for correspondence receipt, distribution, reply, and filing; ensure submission of all required reports; prepare and distribute internal maintenance directives, schedules, and information; and maintain aircraft logbooks and historical records.
- Distribute all non-technical information and publications.
- Supervise and coordinate engineering administrative responsibilities with other departments as required.
- Establish engineering training requirements. Coordinate with the Operations Department, Aeronautical Engineering Department training requirements and assist in obtaining necessary school quotas; program and provide adequate on-the-job training, and coordinate aircrew training with Operations.

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*Continued on next page*



## Section D. Duties, Continued

### **D.21. Aviation Materiel Officer**

The duties of the aviation materiel officer are:

- Maintain liaison with the Supply Department and provide technical advice for procuring and requisitioning aeronautical engineering supplies and allowance list spares.
- Compile and analyze maintenance usage data, Not Mission Capable - Supply (NMCS), Not Mission Capable - Maintenance (NMCM), Not Mission Capable Depot Level Maintenance (NMCD), experience, and recommend changes to stocking list when justified.
- Inventory aircraft upon receipt and transfer and ensure that proper inventory log entries are made.
- Be responsible for procurement, custody, issue, and condition of all general and special tools required by the Aeronautical Engineering Department.
- Request, receive, identify, classify, store, and issue all special aviation material required by the Aeronautical Engineering Department.
- Assist the Supply Department in maintaining a complete inventory of materiel required in the operation of the Aeronautical Engineering Department and initiate immediate replacement to established stocking levels.
- Periodically spot-check aviation materiel in supply to ensure that shelf life has not expired.
- Estimate budgetary needs and administer funds allotted for procurement of material and services. Establish internal methods and procedures by which maintenance personnel can obtain required materiel to support the maintenance effort.
- Initiate action for survey in the event of loss, damage, or destruction of accountable items.
- Ensure that all Class 265 materiel is carefully screened and a positive determination is made that repair of such materiel is beyond unit or local repair capability. Ensure that materiel is properly tagged, packaged, and expeditiously processed.

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## Section D. Duties, Continued

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### **D.22. Aircraft Maintenance Officer**

The duties of the aircraft maintenance officer are:

- Direct preventive and corrective maintenance of aircraft, related equipment, and shop facilities.
- Plan, schedule and control all phases of maintenance. Perform progress checks on all work assigned. Maintain aircraft maintenance status board and keep cognizant personnel informed of aircraft status. Request required material from Aviation Materiel for performance of aircraft and equipment maintenance. Establish a system to ensure delivery of necessary items at the required time and place.
- Ensure that maintenance instructions are prepared when required.
- Ensure prompt and safe movement of aircraft to facilitate the maintenance effort. Prepare necessary aircraft parking plans.
- Maintain all ground support equipment including compliance with inspection requirements.
- Provide aircraft line maintenance including aircraft pre-flight, aircraft post-flight, aircraft servicing, and transient maintenance. Conduct foreign object debris (FOD) prevention program.
- Fuel and defuel aircraft. Manage the aviation fuel facilities.
- Coordinate the training of all personnel involved in aircraft ground handling and aircraft ground support equipment operation. Provide aircraft security including tie-downs and chocks.
- Accomplish required aircraft run-up, aircraft washing, and aircraft interior cleanup.
- Process repairable material to serviceable status.
- Ensure that all materiel and equipment is properly stored, secured, and accounted for.
- Ensure that precision measurement equipment is calibrated and certified in accordance with current directives.
- Prepare Unsatisfactory Report of Aeronautical Material (UR) in rough and forward to Engineering Administration.
- Initiate requests for shop materiel required, periodically review shop usage, and establish inventory re-order points.

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## Section D. Duties, Continued

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### **D.23. Avionics Maintenance Officer**

The duties of the avionics maintenance officer are:

- Manage avionics maintenance and be responsible for the maintenance of electrical equipment and the shop facilities.
- Plan, schedule, and control the avionics maintenance program.
- Coordinate maintenance scheduling with aircraft maintenance officer.
- Promulgate and ensure compliance with maintenance, safety, and security procedures.

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### **D.24. Administration Officer**

The duties of the administration officer are as follows:

- Perform the duties of the head of the department as specified by Coast Guard Regulations.
- Administer, under the direction of the executive officer, all functions pertaining to personnel.
- Provide educational services.
- Maintain general directives files.
- Provide clerical and mail services.
- Provide special services, if not under the Exchange Officer.
- Provide medical services, including dental and sanitary services, if a medical officer is not assigned.
- Supervise wardroom and barracks activities.
- Supervise functions of Personnel Examining Board, Audit Board, and Inventory Board.

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### **D.25. Personnel Officer**

The personnel officer administers personnel accounting, orders, correspondence, files, and reports.

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### **D.26. Special Services Officer**

The special services officer provides special services such as housing, recreation, insurance, voting, bond sales, charity drives, and legal assistance.

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*Continued on next page*



## Section D. Duties, Continued

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### **D.27. Medical Administration Officer**

(if medical officer is not assigned)

The medical administration officer:

- Coordinates medical and dental services.
- Supervises first aid program, including maintenance of medical kits in aircraft, boats, and vehicles.
- Conducts sanitary inspections of buildings and grounds with particular attention to the galley and food handlers.
- Ensures security of controlled substances.

---

### **D.28. Facilities Engineering Officer**

The duties of the facilities engineering officer are:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Oversee unit environmental compliance program.
- Administer program for maintenance and repair of buildings, grounds, boats, and vehicles including aviation fueling facilities and fuel trucks.
- Provide physical security services including fire-fighting and crash-rescue equipment and services.
- Administer boat and vehicle operator training and qualification program.

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### **D.29. Buildings and Grounds Officer**

The duties of the buildings and grounds officer are:

- Conduct a program for progressive preventive and corrective maintenance of all structures.
- Supervise the upkeep of grounds.
- Supervise the station's maintenance force, including use of tools, equipment, and shop.

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### **D.30. Physical Security Officer**

The duties of the physical security officer are:

- Maintain firefighting equipment such as trucks, hydrants, hoses, extinguishers, and crash kits in buildings, vehicles, boats, and on grounds.
- Administer physical security program, including supervision of the gate and security watches.
- Provide identification, parking, and traffic control for vehicles.
- Supervise government vehicle driver examinations.

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## Section D. Duties, Continued

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### D.31. Boats and Vehicles Officer

The duties of the boats and vehicles officer are:

- Maintain boats assigned to the air station.
- Provide boat operator training.
- Maintain station vehicles.

---

### D.32. Supply Officer

The duties of the supply officer are as follows:

- Perform the duties of the head of a department as specified by Coast Guard Regulations.
- Procure, stock, and issue supplies and equipment.
- Prepare and maintain required fiscal and supply records and reports.
- Operate the unit mess.
- Supervise Survey Boards.
- Supervise wardroom and barracks activities if these duties are not assigned to the Administration Department.

---

### D.33. Property Officer

The duties of the property officer are:

- Maintain master record of plant property.
- Maintain and supervise station allowance lists.
- Provide accountability for property issued on custody.
- Dispose of excess and surveyed property.

---

### D.34. Commissary Officer

The duties of the commissary officer are:

- Provide commissary services, including receipt and preparation of food and galley equipment.
  - Ensure cleanliness and sanitation in galley and commissary.
  - Prepare commissary reports, inventories, and requisitions.
  - Carry out such instructions as are promulgated in the Comptrollers Manual and Coast Guard Regulations.
  - Direct the training of subsistence specialists.
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## Section D. Duties, Continued

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### **D.35. Wardroom and Barracks Officer**

The duties of the wardroom and barracks officer are:

- Supervise cleanliness and orderliness of officer's wardroom, mess room pantry, and sleeping spaces.
- When so appointed by the commanding officer, act as mess treasurer and carry out functions as specified in pertinent instructions.
- Supervise the master-at-arms (MAA).

---

### **D.36. Exchange Officer**

The Exchange Department organization must be tailored to the specific Exchange responsibilities of the unit. Comptroller Manual, Volume VII, Non-Appropriated Fund Activities Manual, COMDTINST M7010.5 (series), is the controlling authority and shall be used as a guide to Exchange Department organization.

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## Section E. Watch Organization and Duties

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### E.1. Officer Watches and Duties

#### E.1.a. Senior Duty Officer (SDO)

The SDO shall be the senior aviator in the duty section. As the senior officer of the watch organization, the SDO shall be responsible for the operation, administration, and security of the unit outside of normal working hours. Specific duties of the SDO shall be defined in station instructions.

#### E.1.b. Operations Duty Officer (ODO)

The ODO shall act as assistant to the SDO. Specific duties of the ODO shall be defined in station instructions.

### E.2. Enlisted Personnel Watches and Duties

Because of their varying size and local conditions, air units are not required to establish all of the following watches. In the interest of standardization, however, whenever these watches are established, they shall be titled as listed below. Duties pertaining to each watch shall be specified in station instructions.

- Officer of the Day (OOD)
- Junior Officer of the Day (JOOD)
- Duty Master-At-Arms (MAA)
- Engineering CPO
- Watch Captain (Senior First Class Petty Officer in the duty section)
- Gate Watch
- Switchboard Watch
- Radio Watch
- Security Watch
- Duty Section

### E.3. Standard Watch Organizational Chart

Each air unit shall maintain a watch organization chart.

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## Section E. Watch Organization and Duties, Continued

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### **E.4. Duty Schedule**

Each air unit shall publish a duty schedule that lists the personnel assigned to each watch position.

- The duty schedule shall include the names of personnel assigned to aircraft ready crews.
  - The selection of properly qualified personnel for assignment to aircraft ready crews is a command function. The integrity of ready crews shall be carefully maintained. Changes in ready crew assignments shall be made only with approval of the commanding officer or his designated representatives.
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## Section F. Unit Orders and Instructions

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### **F.1. Operations and Emergency Bills**

The following operations and emergency bills shall be promulgated as appropriate:

- Fire
- Field Crash
- Water Crash
- Search and Rescue
- Disaster Control
- Communications
- Hurricane or Destructive Storm Evacuation Plan
- Pre-mishap Plan
- Recovery and Salvage Plan

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### **F.2. Instructions**

Instructions shall be promulgated by the commanding officer to standardize procedures, express policy, establish doctrine, and comply with directives of higher authority. Each command shall establish numbered directives in accordance with the provisions of Commandant Instructions. All personnel must be thoroughly familiar with all unit instructions pertaining to their duties, watches, and routine.

---

### **F.3. Notices**

Unit notices shall be issued as necessary to announce events of short-lived or passing interest or to direct attention to existing directives. Notices shall be numbered in accordance with the provisions of Commandant Instructions.

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## Section G. Recommended Management Practices

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### G.1. Overview

The preceding paragraphs of this appendix specify the organization of Coast Guard air units. This required organization has been developed from experience and encompasses many practices presently employed at Coast Guard air units. This section deals with recommended practices. Adoption of these specific management practices is not mandatory. Their use has been helpful at many air units and they may be used at the discretion of the commanding officer. If these practices are not used as specifically outlined, the subject matter should be covered adequately in some other manner.

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### G.2. Inspection of Operational Equipment

The manner and frequency of inspection of aircraft, boats, vehicles, fire/crash trucks, and certain items of aircraft and station emergency equipment are specified in other directives. Only by frequent routine inspections can the commanding officer be assured that his operational equipment is in fact ready for use in accomplishing the mission of the unit.

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#### G.2.a. Daily Inspection

An Operational Equipment Status Board should be maintained in the operations center to show the status of aircraft, boats, crash trucks, and other equipment desired.

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#### G.2.b. Periodic Inspection

A more detailed inspection of aircraft, boats, crash trucks, and other equipment as desired should be conducted weekly. This inspection should be made by officers or chief petty officers, using an established inspection form, and should include examination of the structure, regular equipment, rescue equipment, and safety equipment.

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### G.3. Use of Unit Checklists

Unit checklists provide some assurance that specific required actions will be taken, particularly under the stress of operational emergencies. Unit checklists should be promulgated for routine use by cognizant personnel.

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## Section G. Recommended Management Practices, Continued

G.3.a. Search and Rescue (SAR) Checklists	SAR checklists are used for dispatching units in response to emergencies, organizing searches, conducting communications and harbor checks, and ensuring required actions are performed in any SAR case.
G.3.b. Medico Checklists	Medico checklists are used for obtaining advice, securing authorization papers, passing information, and other matters pertaining to medico cases.
G.3.c. Daily Routine Checklists	Daily routine checklists are used for ensuring prompt and timely actions by the ODO, OOD, JOOD, switchboard watch, and other personnel actively involved in the daily routine of the unit.
G.3.d. Tickler Files	Tickler files are used to make a positive check on the timely submission of the units recurring reports and other correspondence.
G.3.e. Pre-mishap Plan Checklists	Pre-mishap plan checklists are used to ensure that all actions required by the unit pre-mishap plan are accomplished in a timely fashion.
<b>G.4. Pilot Status Report</b>	A pilot status report should be established to post information on each pilot's aircraft qualifications, total pilot time, monthly and semiannual pilot hours, and instrument approach statistics.
<b>G.5. Training Status Reports</b>	Training status reports, for posting information on the training status of both pilots and aircrew members, should be established in the training office.
<b>G.6. Destructive Weather Plan</b>	The primary purpose of a destructive weather plan is to provide protection for equipment while maintaining an acceptable SAR readiness before and after destructive weather.
G.6.a. Aircraft Repair and Supply Center (ARSC)	ARSC shall be included in the Fifth CG District destructive weather plan.
G.6.b. Aviation Training Center (ATC)	ATC shall be included in the Eighth CG District destructive weather plan.





# **APPENDIX B: U.S. COAST GUARD AIRCRAFT CHARACTERISTICS TABLE OF CONTENTS**

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## Section A. General Organizational Principles

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### Overview

Coast Guard aircraft fall into two broad categories: rotary-wing (R/W) helicopters and fixed-wing (F/W) airplanes. Each has specific capabilities that might make it more suitable than another might for a particular mission. The R/W fleet is comprised of the HH-65, MH-68, and HH-60 helicopters. The F/W inventory of airplanes includes the HC-130, the HU-25, and two dedicated transport aircraft, the C-37 and the VC-4.

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### A.1. Helicopters

The Coast Guard uses three different helicopter types, the HH-60, the MH-68 and the HH-65. R/W aircraft tend to be more complex, slower, and have shorter range than F/W craft. Helicopters can generally embark on flight-deck-equipped cutters and extend the cutter's effective range. They provide transportation to areas not normally accessible by F/W aircraft using capabilities that include landing at remote sites, sling loading, hoisting survivors, or hoisting items to personnel on the surface. Their maneuverability makes them ideal for searching in confined or congested areas, such as cities, airports, harbors, and inland waterways.

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### A.2. Airplanes

The Coast Guard uses four different F/W aircraft: the HC-130, the HU-25, and two dedicated transport aircraft, the C-37 and the VC-4. The strengths of F/W aircraft generally include speed, range, and the ability to transport more people and cargo. Usually, they can loiter on scene longer than helicopters. Compared to helicopters, airplanes have better communications capabilities (more radios and higher operating altitudes) and are equipped with more sophisticated sensors. They are limited to operating from airport runways. The HC-130 can operate from other approved landing sites that may be gravel strips or unprepared fields. HU-25 and HC-130 aircraft can airdrop pumps, rafts, Datum Marker Buoys (DMBs), smoke markers, message blocks, and other small items.

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## Section A. General Organizational Principles, Continued

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### A.3. Sensors

Coast Guard aviators have a variety of electronic sensors available to enhance normal observation capabilities. Using the right sensor in the right situation multiplies the likelihood of successfully detecting the object of a search. These sensors include personal devices such as photographic cameras, video cameras, night vision devices, and aircraft installed devices such as direction-finding equipment, flight reconnaissance cameras, and various forms of radar, ultraviolet line scanners, and infrared heat sensing devices. The hand-held devices like cameras are carried routinely on Coast Guard operational missions. Specific models of cameras will vary at each air station, but they are all capable of capturing usable imagery from an aircraft. Night vision devices are not carried on every flight; rather, they are usually carried only on flights where their use is anticipated. Table B-1 in Section B of this appendix contains information on the various sensors found in specific aircraft.

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#### A.3.a. Direction Finding (DF)

Every operational Coast Guard aircraft has DF equipment, which enables it to track radio transmissions made over VHF-AM, VHF-FM, or UHF frequencies to the source. It is this gear that permits Coast Guard aircraft to locate distress signals emitted from an aircraft emergency locator transmitter (ELT) or from a vessel emergency position identification radio beacon (EPIRB).

When Coast Guard pilots make radio contact with an aircraft or vessel in distress, they often ask the operator to transmit a “short count” over the radio. By doing this, they DF off the radio transmission frequency to verify their intercept heading to the distressed unit.

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#### A.3.b. Radar

The basic concept of radar operation involves bouncing an electronic signal off a target for detection and range information. Fog or clouds do not degrade radar. Coast Guard aviators use radar for avoiding severe weather and to detect surface and air targets (when equipped). All Coast Guard aircraft are equipped with radar, but the following radars have unique capabilities.

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## Section A. General Organizational Principles, Continued

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### A.3.c. APS-137

HC-130H airplanes are equipped with the APS-137 inverse synthetic aperture radar for surface searching, and the APN-215 radar for weather avoidance. The APS-137 is an outstanding search radar. It is a multimode radar system capable of weather avoidance, navigation, and sea borne target surveillance and imaging. It provides automatic target tracking of multiple selected targets. Target data such as latitude/longitude, course, heading, bearing, distance, and speed are updated continuously. A video recorder tapes the radar displays. In calm seas (four feet or less) it can identify an oil slick. In addition, it has been found to be useful in following airborne targets.

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### A.3.d. APS-143

The HU-25D has the APS-143V(3) radar installed. Similar in concept to the C-130's APS-137, the APS-143 provides both superior detection quality and superior detection when compared to other radars. The APS-143 is a tri-mode radar, possessing normal surface detection mode, ISAR or contact "imaging" mode, and weather display mode. This radar can also simultaneously track up to 30 contacts, with the ability to dead reckon those contacts that are no longer within the radar's field of view.

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### A.3.e. Side Looking Airborne Radar (SLAR)

SLAR is a system that "looks" perpendicular to the direction of travel to produce a wide swath of coverage. Air Station Elizabeth City, North Carolina, has two SLAR radar suites. They are used primarily for International Ice Patrol (IIP) support, but are also capable of locating and mapping oil on the water. SLAR aircraft record all data digitally, and unlike its predecessor, in "real time."

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### A.3.f. APG-66

HU-25C model airplanes are equipped with radar originally designed for intercepting other aircraft, the APG-66. This radar has unique capabilities that also make it very suitable for locating, intercepting, and tracking vessels. Its computer-generated display provides target data on the radar screen that can be recorded on videotape. It directs and locks the HU-25C's FLIR sensor to the correct target so a FLIR image can be recorded as the aircraft approaches the target. It is also a very good weather radar.

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## Section A. General Organizational Principles, Continued

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### **A.3.g. Night Vision Devices (NVDs)**

Night vision devices come in several forms, including Night Vision Goggles (NVGs) and Forward Looking Infrared Radar (FLIR). There are single tube viewers, such as “sniper scopes,” and double-tubed, helmet or harness mounted goggles used by aviators. FLIR may be mounted on the aircraft or it may be hand-held.

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### **A.3.g.(1) Night Vision Goggles (NVGs)**

Some F/W aircraft employ NVGs as a search tool used only by scanners. In the HH-60, HH-65, and MH-68 the pilots flying the aircraft also use NVGs. (These aircraft have NVG compatible cockpit lighting.) NVGs restrict peripheral vision, do not provide great depth perception, and cause greater crew fatigue. As a result, extensive training is necessary for pilots to obtain and maintain flight qualification with NVGs. NVGs work on the principle of reflected light. They can be thought of as image intensifiers or light amplifiers. They require some minimal illumination, either moonlight, starlight, or illumination generated by the target. High intensity light may cause them to shut down and exposure to daylight may damage them.

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### **A.3.g.(2) Forward Looking Infrared (FLIR)**

FLIR sensors detect temperature differences between objects and create a map of these thermal differences to form a visual image. The image created appears to the viewers in a form similar to a black and white negative. FLIR sensors are valuable for night operations and are useful for detecting changes in surface temperature caused by oil. Unlike NVGs, FLIR devices can also be valuable sensors during day operations. However, high humidity, fog, clouds, and rain tend to scatter and absorb the available thermal energy, causing the effectiveness of FLIR sensors to decrease. Generally, a FLIR sensor has limited use as a pure search tool, but is effective in identifying objects detected by other means. In the HU-25C and D, and HC-130H aircraft equipped with the CASPER sensor package, FLIR can be slaved to the radar for a visual display of a nearby radar target. The HH-60 can be outfitted with a removable, turret mounted FLIR. This does, however, limit the HH-60’s rough area landing capability. Several units report success using a hand-held FLIR video camera pointed out of an open helicopter door.

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## Section B. Aircraft Characteristics

### B.1. Overview

When planning a mission, one should be aware of Coast Guard aircraft characteristics. While the pilot is the final judge of aircraft capability during a mission, operations planners should be aware of the specifications of aircraft in the Coast Guard inventory; this will allow more informed decisions when allocating resources. Table B-1 provides the characteristics of Coast Guard aircraft.

**Table B-1**

	HH-65	HH-60	HC-130	HU-25	MH-68
Inventory					
Funded Allowances:	82	35	26	17	8
Total:	96	42	30	41	8
MAX Weight (lbs.)	9200	21884	155000	32000	6613
Fuel Capacity (lbs.)	1900	6460	62900	10000	1055 <sup>4</sup>
MAX Endurance (hrs.)	3+30	6+00	14+00	4+15	2+15 <sup>4</sup>
Cruise Speed (KTAS)	125	125	290	410	137
Max Range (NM)	375	700	4500	1700	363
Radius of Action	150 <sup>1</sup>	300	1600	750	100
Normal Crew (pilots/aircrew)	2/1	2/2	2/5	2/3	2/1
SAR Equipment	Hoist Sling Basket Litter Pump Homer Flares DMB Raft	Hoist Sling Basket Litter Pump Homer Flares DMB Raft	Raft Litter Pump Homer Flare DMB	Raft Litter Pump Homer Flare DMB	Hoist Sling Flares DMB Raft
Special Equipment	NVG <sup>5</sup> Cargo Hook (2K lbs) <sup>6</sup> FLIR <sup>2</sup> Searchlight X-band Radar (Telephonics 1300)	NVG <sup>5</sup> Cargo Hook (6K lbs) FLIR <sup>2</sup> Searchlight X-band Radar (Telephonics 1300)	NVG <sup>5</sup> SLAR <sup>2</sup> APS-137 CASPER WX Radar (AN/PV-215)	NVG <sup>5</sup> AN/APS 127 <u>HU-25D</u> APS-143 IR/ Day Zoom Camera <u>HU-25C</u> APG-66 FLIR Day Zoom Camera	NVG <sup>5</sup> HUD M240 .50 Cal Sniper Rifle FLIR Searchlight

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## Section B. Aircraft Characteristics, Continued

**Table B-1** (Cont'd)

	<b>HH-65</b>	<b>HH-60</b>	<b>HC-130</b>	<b>HU-25</b>	<b>MH-68</b>
Communications	UHF VHF-FM VHF-AM HF Vinson DES	UHF VHF-FM VHF-AM HF Vinson ANDVT DES <sup>2</sup>	UHF VHF-FM VHF-AM HF Vinson ANDVT MILSATCOM <sup>8</sup>	UHF VHF-FM VHF-AM HF Vinson ANDVT LoudhailerCOTHEN <sup>2</sup> MILSATCOM <sup>7</sup>	UHF VHF-FM VHF-AM HF Vinson ANDVT MIL SATCOM DES
Navigation	VOR ADF <sup>3</sup> RNAV TACAN GPS	VOR ADF <sup>3</sup> DOPPLER TACAN GPS	VOR/DME ADF <sup>3</sup> INS TACAN GPS	VOR ADF <sup>3</sup> RNAV TACAN GPS INS	VOR RNAV TACAN GPS
<p><b>Notes:</b> <sup>1</sup> HH-65 radius of action reduced to approximately 120nm with the addition of a rescue swimmer  <sup>2</sup> Not all aircraft  <sup>3</sup> ADF – LF/UHF/VHF-FM/VFH-AM  <sup>4</sup> Auxiliary tank is available for an additional 180 lbs of fuel (20 min additional endurance)  <sup>5</sup> <u>F/W</u>: Scanner position (crewmen) only. <u>R/W</u>: Fully capable all positions (including pilots)  <sup>6</sup> 2000 lbs is max capacity. Due to H65 weight concerns, 1000 lbs is a normal operational value  <sup>7</sup> On all HU-25C and D model aircraft.  <sup>8</sup> On CASPER equipped aircraft or specifically prearranged.</p>					



## Section C. Helicopters

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### C.1. Overview

Coast Guard R/W aviators are equipped and trained to fully exploit the unique capabilities of the helicopter. The HH-65 Dolphin is used for short range missions, the HH-60 Jayhawk is used for more distant or heavier lift missions and the MH-68 is used for the Coast Guard's Airborne Use of Force missions. Helicopters are not limited to operating only from airports. When considering an unprepared site, the aircraft commander must consider obstructions, loose debris, and stability of the surface. Debris can be ingested into the engine, damage the rotors, or be blown in the air to obscure the landing sight. If landing is not advisable, then hoisting may be an option.

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### C.2. Hoisting

Coast Guard helicopters are equipped with an electrically controlled, hydraulically actuated hoist with emergency cutaway capability. The hoist has approximately 200 feet of cable and a maximum capacity of 600 pounds. A helicopter hoist is a demanding evolution that involves the entire crew as a team. The hoist mechanism is normally controlled by an aircrewman who is in constant communication with the pilot. Personnel may be hoisted by using a basket, a litter, or a strop. Hoisting is authorized to or from remote, isolated sites and vessels where a landing would be impractical. There is always a certain amount of risk involved in conducting a hoist. As a result, Coast Guard policy does not allow the hoisting of personnel for convenience or administrative purposes. A night hoist from a small vessel in rough seas not only places the person being hoisted, but the aircraft and vessel as well. Due to the risks associated with hoisting, flight surgeons are consulted before each aeronautical medical evacuation (MEDEVAC) to evaluate whether or not the medical distress is serious enough to warrant hoisting an individual. A pilot in command (PIC) can always choose not to conduct a hoist if he or she determines that it cannot be conducted safely.

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## Section C. Helicopters, Continued

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### C.2.a. Rescue Swimmers

A rescue swimmer is a specially trained aviation survivalman who departs the helicopter to assist in accomplishing the hoist. He or she enters the water or an otherwise inaccessible area to help the victims into the hoisting device. Rescue swimmers are certified emergency medical technicians. Only the PIC has the authority to employ the rescue swimmer.

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### C.3. Common Equipment

The HH-60 and HH-65 helicopters are equipped with a cargo hook for sling load operations. The HH-65 has 2,000-pound capacity and the HH-60 has a 6,000-pound capacity. A sling load operation must be preplanned so that an accurate assessment of the necessary precautions can be made. A multimillion-candle power searchlight can be fitted on all Coast Guard helicopters to illuminate targets during night operations. The RDR-1300C weather/search radar system is used on the HH-60 and HH-65 for detection of small surface targets at short range, for ground mapping to enhance navigation, and for long-range weather surveillance for storm avoidance or penetration.

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### C.3.a. Critical Component

All helicopters generate their lift and thrust from the motion of their main rotor blades through the air mass. They use a gearbox to transmit the power required for this motion from the engines to the main and tail rotors. The transmission gearbox is a critical element in the aerodynamic process, and, as a result, a chip detector is placed there to monitor the transmission's integrity. When the chip detector indicates that chips of metal are present in the gearbox oil, the helicopter must land and be checked as soon as possible.

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### C.3.b. Flight Cover

F/W aircraft frequently fly "cover" for helicopters performing hoist missions when the helicopters are operating at a distance from other rescue resources. The F/W aircraft can be used to fly ahead and positively locate the target. This minimizes the time spent by the helicopter locating the search target. The F/W aircraft also acts as a communications relay platform, monitoring the progress of the evolution and passing information between the low-flying helicopter and the distant command center. More importantly, the F/W aircraft keeps track of the helicopter's position so that it can direct rescue resources to the correct position in the event of a mishap.

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## Section C. Helicopters, Continued

### C.3.c. Shipboard Operations

Shipboard Operations consists of Launch, Recovery, VERTREP, or HIFR. Specific aircraft and cutter combinations are determined by a cutter a NAVAIR Aviation Facility Certification (AVCERT). The cutters particular AVCERT listed in the Shipboard Aviation Facility Resume, NACA 7576, will detail specific limitations, but generally:

- The HH-65 and the MH-68 are the Coast Guard's shipboard-deployable aircraft and operate from all flight-deck-equipped cutters.
- The HH-60 can operate from WMEC 270, WAGB 399, WAGB 420, and WMEC 282 cutters.
- The HH-60 and HH-65 helicopters can conduct helicopter in-flight refueling (HIFR) from all suitably equipped cutters and Navy vessels. The HIFR maneuver consists of hovering over the vessel, hoisting aboard the HIFR fueling rig, pressure refueling, and lowering the rig back to the vessel. HIFR involves greater risk than landing and refueling. Therefore, training shall be conducted to maintain cutter and aircrew proficiency.

A more thorough discussion of ShipHelo operations is contained in the Shipboard Helicopter Operational Procedures Manual, COMDTINST 3710.2 (series).

### C.4. Specific Helicopter Characteristics

The following paragraphs contain specifications for Coast Guard helicopters.

#### C.4.a. HH-60J

The HH-60 "Jayhawk" is the Coast Guard's medium range rescue (MRR) aircraft. It is a single-rotor, twin-engine helicopter. The strengths of this airframe include load capacity and range. The aircraft is equipped with a rescue hoist, an external cargo hook, and pylons for carrying external fuel tanks or the night sun searchlight (right pylon). This helicopter has been operated from WMEC 270 B Class cutters. However, with the exception of certain air stations that have this requirement, most HH-60 pilots do not maintain shipboard landing qualifications.

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## Section C. Helicopters, Continued

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### C.4.a.(1) Crew

The minimum crew consists of two pilots and a flight crewmember. A typical SAR crew includes two pilots, a flight mechanic, and a rescue swimmer. In this configuration it is designed to pick up six survivors, although they will not all have seats. Up to six passengers can be carried in seats if the SAR gear is removed and/or fewer crew are aboard. The maximum gross weight is 21,884 pounds. The maximum fuel load is 6,460 pounds, but to have this much fuel, the helicopter must be equipped with three auxiliary tanks on the pylons. Without any fuel, the normal HH-60 weighs around 15,000 pounds. This means that an HH-60 with maximum fuel and a crew of four must reduce its fuel load to carry additional cargo. The ambient temperature will also influence the takeoff load capacity.

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### C.4.a.(2) Performance

The HH-60 burns fuel at an approximate rate of 1,200 pounds of fuel per hour. It has a top speed of approximately 180 knots, but time at this speed must be minimized to reduce airframe vibratory loads. Typical cruise speed is around 130 knots. Maximum range air speed varies, but 127 knots is a rough average. Maximum endurance air speed is around 70 knots. The maximum range of the HH-60 for a point-to-point transit approaches 700 NM. A radius of action of 300 NM, provides for twenty minutes of hovering for hoists, and a 20-minute fuel reserve upon return. If the object is to stay aloft, an HH-60 can fly a maximum endurance profile for approximately seven hours.

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### C.4.a.(3) Navigation

The HH-60 has a fully equipped navigation suite. It consists of GPS integrated with INS, a VOR, a TACAN, an ADF receiver, and a Doppler radar navigation set. The HH-60 is the only Coast Guard aircraft with Doppler navigation. This unit determines movement over the ground by detecting the frequency shift as four radar beams bounce off the surface. Navigation inputs are processed through a tactical data processor (TDP). This TDP can generate search patterns from pilot-provided inputs. The HH-60 does not have a fully coupled autopilot.

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### C.4.a.(4) Communications

The communications suite includes two dual multiband VHF/UHF/FM radios and an HF radio. Radio direction finding capability is also included. Secure communications are available through KY-58 (VINSON) and ANDVT.

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## Section C. Helicopters, Continued

<b>C.4.a.(5) Sensors</b>	The RDR-1300C radar is used for small target detection, ground mapping, and weather avoidance. A turret mounted FLIR may be mounted, and the FLIR image captured on videotape. Hand-held video and photographic equipment is universally carried, but the specific capabilities of this equipment vary by air station. For night operations, all HH-60 pilots are qualified to fly wearing NVGs.
<b>C.4.a.(6) Equipment</b>	SAR equipment carried onboard the HH-60J includes a rescue basket, a hoist sling, a DMB, MK25 and MK 58, smoke flares, a pump, litter, and the crew's six man life raft. When the optional night sun searchlight is installed, the right external fuel tank must be removed. This results in the loss of approximately 30 minutes of fuel.
<b>C.4.b. HH-65</b>	The HH-65 "Dolphin" is the Coast Guard's short-range recovery (SRR) aircraft. This twin engine, single rotor aircraft is fully equipped for instrument flight conditions, but it is prohibited from flying in known icing conditions. The strengths of this airframe include speed, integrated electronics, and flexibility. The HH-65 is the most plentiful Coast Guard aircraft and is widely distributed throughout the country. Typical missions include rescue, surveillance, and transportation.
<b>C.4.b.(1) Crew</b>	The minimum crew is a pilot and an aircrewman. This size crew is limited to day, visual flight rules operations. A typical SAR crew includes two pilots, an aircrewman, and a rescue swimmer. A maximum of eight persons, including the crew, can be carried.

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## Section C. Helicopters, Continued

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### **C.4.b.(2) Performance**

The HH-65 has a top speed of 165 knots, but this can be maintained only for short periods. A typical maximum cruise speed is around 140 knots. Maximum range air speed varies but 120 KIAS is a rough average. Maximum endurance air speed is approximately 75 knots. The maximum range of the HH-65 for a point-to-point transit approaches 375 NM. A crew of three can fly slightly over 125 NM, hover for twenty minutes for hoists, and return. If the objective is to stay aloft, an HH-65 with three crewmen can fly a maximum endurance profile at 75 knots for around three hours and thirty minutes. Adding another pilot and/or a rescue swimmer cuts into the amount of fuel one can carry. The maximum fuel load for the HH-65 is just under 2,000 pounds, but this can usually be carried only with a crew of three. Any additional crew or cargo will cut into the fuel load and reduce endurance and range. The typical fuel load one can expect without prior notification is around 1,500 pounds. An average fuel burn of 600 pounds per hour is typical. The power produced by the engines is related to the temperature and pressure altitude. Under adverse conditions, a fully loaded HH-65 may not be able to hover safely. In emergency situations, it can dump fuel to reduce total aircraft weight.

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### **C.4.b.(3) Navigation**

HH-65 navigation configuration consists of GPS, a VOR, a TACAN, and an ADF receiver. Navigation inputs are processed through a central mission computer unit (MCU). This MCU can generate search patterns from pilot-provided input and the flight director can be coupled to the MCU. This minimizes the attention needed to navigate the aircraft and maximizes search effectiveness.

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### **C.4.b.(4) Communications**

The HH-65 has excellent communications capabilities. The communications suite includes two dual multiband VHF/UHF radios, an HF radio, and a VHF-FM radio. Direction finding capability is available on UHF and both VHF bands. A dedicated power source and antenna is available for the quick installation of medical telemetry equipment. Secure communications are available through KY-58 (VINSON), and DES. However, secure HF capabilities are limited.

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## Section C. Helicopters, Continued

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### C.4.b.(5) Sensors

The primary sensor is the RDR-1300C radar used for surface search, weather avoidance, and ground mapping. For night operations, all HH-65 pilots are qualified to fly wearing NVGs. In addition to photographic and video camera, some air stations use hand-held FLIR video cameras to enhance sensor capability.

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### C.4.b.(6) Equipment

Typical equipment carried onboard the HH-65 includes a rescue basket, a hoist sling, a DMB, MK25 smoke flares, and the crew's six man life raft. A litter or dewatering pump are not normally carried but can easily be taken if needed.

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## Section D. Airplanes

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### D.1. Overview

Using F/W aircraft means one will have other capabilities not normally available from helicopters. These capabilities normally include greater speed, range, and endurance. Airplanes usually have more extensive sensor, navigation and communications capabilities, and they are usually more suitable for cargo and passenger transportation.

### D.2. Airports

There are also different planning considerations when using the capabilities of F/W aircraft. Airport facilities are the first thing that must be considered. Is there a suitable (adequate runway and fuel) airport available? Does the particular aircraft require special services, such as customs or maintenance facilities? Can the runway bear the weight of an aircraft such as a fully loaded HC-130H?

#### D.2.a. Runway

Probably the most critical element at any airport for a F/W aircraft is the runway length. In general, runways that are 5,000 feet in length, dry, and not higher than 1,000 feet above sea level are adequate for all Coast Guard airplanes. If the runway is wet or icy, the runway must be longer. Altitude, temperature, winds, and aircraft weight determine what runway length is required for each model airplane.

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## Section D. Airplanes, Continued

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### D.3. Fuel, Range, and Endurance

It is desirable to have a suitable airport as close as possible to the operating area in order to maximize the amount of fuel available for the operational mission. Contingency planning requires the multi-engine pilot to have sufficient fuel in reserve to be able to land at a suitable airport in case of a loss of one engine. It is normally best to plan a search so the aircraft is creeping in the direction of the suitable airport. As the search progress and the fuel on board the aircraft diminishes, the fuel needed to fly to the suitable airport is also being reduced. How the airplane is configured and flown makes a big difference. It is more efficient for turbine (HU-25) and turboprop (HC-130H) airplanes to fly at higher altitudes. They can fly faster with less fuel flow per mile at higher altitudes than at sea level. Even at sea level, there are choices to be made. Should the airplane fly at “Best Range Speed” to cover more track miles? Or, should it cover less territory and stay airborne a little longer by flying at “Maximum Endurance Speed?” Any identification (ID) passes or operations at lower airspeeds with flaps extended increase fuel usage and further reduce the range of coverage. Transport flights typically are made at high altitudes and contend with the “jet stream” which flows predominately west to east in the northern hemisphere. Jet stream winds of 100 to 200 knots are common. Obviously, this can either degrade or enhance aircraft range depending on the direction of travel and the current position of the jet stream.

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### D.4. Aerial Delivery

A SAR ready F/W HC-130 or HU-25 can deliver a pump, a raft, a rescue kit, a datum marker buoy (DMB), smoke floats, and message packets. Anything that can fit inside an approved delivery container can be dropped. (HU-25s are limited to dropping containers no heavier than 90 pounds.) The larger items are dropped with a parachute, and smaller items, including smoke floats and message packets, are dropped free fall. An experienced pilot making an aerial delivery expects an average linear accuracy of 50–100 feet and lateral accuracy of 20–40 feet under light wind conditions. As winds increase above twenty knots, accuracy is much more difficult to gauge.

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### D.5. Aircraft Specifications

The following paragraphs contain the specifications for Coast Guard aircraft.

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## Section D. Airplanes, Continued

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### D.5.a. HC-130H

The HC-130H is an all-weather, day and night airlift/airdrop, and surveillance platform. With worldwide use and intercontinental range, the “Hercules” is the world’s most versatile tactical transport aircraft. The Coast Guard uses this airlift capability to support normal operations, emergencies and relief activities, as well as long-range SAR and surveillance. Due to a lack of maneuverability and large size, the HC-130H is impractical for harbor patrols. It is more suited for offshore, extended performance missions. For visual searching, the aircraft is equipped with search windows on either side of the fuselage.

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#### D.5.a.(1) Crew

A normal crew of seven includes two pilots, a flight engineer, navigator, radio operator, and two dropmasters (or one loadmaster plus one dropmaster for cargo flights).

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#### D.5.a.(2) Performance

A fully fueled HC-130H with no cargo can fly a long-range profile of over 4,000 miles and land with a 1.5-hour fuel reserve. This transit would take approximately 14.5 hours. A similarly loaded aircraft could fly a low level patrol at a maximum range air speed of approximately 210 knots and cover almost 2,300 track miles while consuming an average 6,000 pounds of fuel per hour. For extended time on scene, a pilot might choose to fly at maximum endurance air speed, approximately 140 knots, and reduce the fuel consumption to around 4,000 pounds per hour. A typical logistics mission with 35,000 pounds of cargo limits the fuel load to 40,000 pounds before exceeding maximum takeoff weight. This fuel load provides a 2,000-mile range at cruise altitude. The minimum runway length required for takeoff on such a mission would be 4,900 feet. Only 3,400 feet of dry runway would be necessary for the landing.

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#### D.5.a.(3) Facility Requirements

Military airfields are the preferred facilities because they will have available special loading equipment plus excellent fuel and maintenance support. However, this does not preclude use of civilian fields if necessary. Although, the HC-130H can be operated from unimproved surfaces, the runways and taxiways at any airfield for proposed operations should have a single-tandem weight-bearing capacity greater than 155,000 lbs.

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## Section D. Airplanes, Continued

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<b>D.5.a.(4) Navigation</b>	The aircraft has GPS and INS for long-range navigation. Two VORs, two TACANs, and an LF-ADF round out the navigation suite.
<b>D.5.a.(5) Communications</b>	Communications radios include two multiband VHF/UHF/FM units, a FM, VHF, and two HF radios. Secure communications are provided with KY-58 (Vinson), KY-75 (Parkhill), and ANDVT.
<b>D.5.a.(6) Sensors</b>	All Coast Guard HC-130Hs are equipped with both APN-215 weather radar and APS-137 ISAR (Inverse Synthetic Aperture Radar). The APS-137 radar controls and displays are located at the navigator's station. 1500 series HC-130s can be configured with Side Looking Airborne Radar (SLAR). They are used primarily for International Ice Patrol, and to detect and map oil spills.
<b>D.5.a.(7) CASPER System</b>	All HC-130Hs can be configured in approximately three hours with the CASPER system. This system is comprised of a WESCAM, Model 20TS turret assembly and two operator stations installed on a standard cargo pallet. The turret assembly contains a 3 <sup>rd</sup> generation infrared sensor for low light & nighttime target detection, evaluation and classification and two electro-optical sensors for initial target acquisition and identification if the conditions are favorable. The electro-optical sensors are a wide field of view color camera with a continuous zoom range of 9-162mm and a black and white narrow field of view camera with step zooms of 600mm, 1200mm, 1900mm, and 3200mm. The Sensor System Operator (SSO) occupies the left side operator station on the CASPER pallet and controls the sensor turret. The Tactical System Operator (TSO) operates the Airborne Tactical Workstation (ATW) on the right side of the pallet and is responsible for target data management utilizing DoD OASIS software to display target information and ICE software for image capture and transmission.

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## Section D. Airplanes, Continued

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### **D.5.a.(8) Passenger and Cargo Information**

Up to 70 passengers may be carried aboard an HC-130H using palletized airline type seating in the cargo area of the airplane. When this many passengers are being carried, cargo capacity is very limited. For loading cargo, the HC-130H has a cargo ramp and door in the tail section. The ramp may be placed in a horizontal mode, which is level with the bed of a truck or a K-loader. The ramp can also be lowered to the ground for loading vehicles and trailers.

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### **D.5.a.(8)(a) Variables**

The interior dimensions of the cargo compartment measure 492 inches long by 123 inches wide by 108 inches high. The actual usable width with the dual rail system installed is 108 inches. This dual rail system can be removed, but it is a laborious process. So, if one must transport an extra wide vehicle, for example, alert the supporting air station as early as possible to avoid any delay. Besides interior dimensions, other variables must be taken into account to avoid loading problems or delays. These include but are not limited to: axle height, overhang, floor loading, and weight and balance.

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### **D.5.a.(8)(b) Pallets**

Palletized cargo is the preferred method of transporting bulk supplies or items. This is because pallets are easy to load and unload; there are rollers in the cargo floor. Pallets are also easy to restrain because restraints are built into the dual rail system. Finally, the size and dimension of each pallet make calculating the weight and balance relatively easy. Pallets are made of balsa wood clad in an aluminum skin. Each measures 88 inches by 108 inches and weighs 290 pounds. Up to six pallets can be loaded in an HC-130H. Two pallets may be secured together for items larger than one pallet. (Such items require a K-loader for loading/unloading.) If one wants to move equipment as expeditiously as possible, palletize, weigh, and mark all cargo before the arrival of the aircraft. Most large Coast Guard stations can provide pallets or help locate some. Also, remember to shrink-wrap any potentially hazardous cargo.

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## Section D. Airplanes, Continued

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### **D.5.a.(8)(c) Cargo Limitations**

The authoritative source for all military air cargo transport rules is the Armed Forces Joint Manual 24-204, Manual for Preparing Hazardous Materials for Military Air Shipments. NOTE: The less stringent requirements contained in Chapter 4 are only for contingency operations and require Commandant (G-OCA) approval. In general, one should be aware of the following requirements:

- Self-propelled machinery carried as cargo, such as vehicles, forklifts, etc., may contain no more than one-half tank of fuel. It is critical that no more than one-half of the fuel tank be filled. Excess fuel venting in the cargo area threatens the airplane and crew, and it will require an immediate landing.
- Machinery that is not self-propelled, such as generators, pumps, etc., must have empty tanks, all fuel must be purged, and the battery must be disconnected. Fuel for such items may be carried separately in approved containers. (See AFJMAN 24-204).

There are other requirements, which may preclude carrying passengers with certain cargo unless Commandant (G-OCA) grants a waiver. Some cargo items are prohibited from being shipped together. If one does not have a copy of AFJMAN 24-204 to use in planning one's load, the air station supporting the airlift will be able to help.

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## Section D. Airplanes, Continued

### D.5.b. HU-25

The HU-25 is the Coast Guard's medium range surveillance (MRS) aircraft. Speed, range, and versatility characterize this airframe. This is a military version of the civilian Dassault Falcon 20 airframe equipped with two large search windows to enhance its surveillance and search capabilities. Each HU-25 has a drop hatch through which pumps, rafts, DMBs, smoke markers, message blocks, and other small items can be delivered. The HU-25 is not designed to be a cargo airplane, so it is not equipped with extensive tie down points or an oversized entry. Nevertheless, it is often used to transport relatively small items when time constraints, operational security, or availability rule out commercial shipment. It is an excellent means to transport key individuals to a crisis command center. The HU-25 is also a suitable MEDEVAC aircraft for ambulatory patients and incubators. There are currently three versions of the HU-25: the A, C, and D models, differentiated by the type of mission sensors installed. The AIREYE sensor equipment that distinguished the HU-25B model was removed from service in October 2002.

### D.5.b.(1) HU-25A

#### D.5.b.(1)(a) Crew

The normal operating crew consists of two pilots, an avionicsman or sensor systems operator, a dropmaster, and an observer. The aircraft can be configured to seat up to nine persons. For transport or logistics missions the crew can be reduced to two pilots and an avionicsman so up to six passengers can be moved.

#### D.5.b.(1)(b) Performance

Maximum speed at sea level is 350 knots, but normal search speed varies between 180 and 250 knots, as discussed in the next section. At altitude above 25,000 feet, true airspeeds (does not include the effect of winds) of 450 knots are possible, but 410 knots is closer to normal cruise.

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## Section D. Airplanes, Continued

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### **D.5.b.(1)(c) Range and Endurance**

Under “no wind” conditions, the HU-25A has a range of slightly less than 1,700 nautical miles if the flight is conducted at high altitude. At low altitude, in warmer temperatures, the HU-25 is less fuel-efficient. A flight conducted entirely at 1,000 feet under VFR conditions may have a range of between 800 and 900 nautical miles. Range and speed are just some tradeoffs involved during a typical mission. The maximum range air speed for the HU-25A is around 250 knots indicated air speed (KIAS) and the maximum endurance speed is around 180 KIAS. There are tradeoffs with both speeds: a search at 250 KIAS will cover more ground but would have a lower probability of sighting a small object; a search at 180 KIAS would improve detection but cover less area. To fly much slower than 160 KIAS, flaps must be extended, which creates additional drag and further reduces on-scene endurance. The minimum air speed available is around 125 knots, and it is used when trying to identify small targets or sightings. The HU-25A may operate as low as 100 feet under daylight conditions to identify a vessel. If the goal is to maximize the time the aircraft remains on scene to act as a communications relay platform, for instance, or to await arrival of a surface asset, slowing to maximum endurance air speed (approximately 180 knots) is necessary. Climbing to a higher altitude also increases on-scene minutes.

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## Section D. Airplanes, Continued

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### **D.5.b.(1)(d) Fuel**

The HU-25 maximum fuel load is 10,431 pounds. The typical load one can expect without prior notification is around 8,000 to 8,500 pounds. This is a good general-purpose fuel load, which permits the aircraft to take off under high temperature conditions. It also serves to keep the aircraft weight light enough to make a normal landing shortly after takeoff if necessary. The fuel system has a feature that senses when the wing tanks are full and closes several valves to prevent spillage. This can cause problems if one wants to add fuel to an airplane that already has significant fuel still in the wing tanks. If the wing sensors are wet, the valves will not open and refueling will not be possible until fuel is drained from the wings and the sensors are dry.

Like many types of aircraft, the HU-25 cannot always take off with a full fuel load, even with prior notice. Hot temperatures, higher elevations, obstacles near the airport, runway lengths shorter than approximately 7000 feet, or a combination of these variables can limit the aircraft's takeoff weight.

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### **D.5.b.(1)(e) Navigation**

The HU-25 uses an area navigation system (RNAV) computer to provide precise navigation capability. The RNAV computer receives, filters, and combines navigation data from very high frequency omnidirectional range (VOR) receivers, distance measuring equipment (DME) receivers, an air data computer, an inertial navigation computer and from a Global Positioning System (GPS) unit. The pilots enter the desired flight plan information, including search pattern data, into the RNAV. The output of the RNAV gives the pilots lateral and vertical flight guidance information. By coupling this information with the autopilot, pilots can monitor navigation information more efficiently and devote more time to scanning outside the aircraft. The HU-25 also has single tactical air navigation (TACAN) and ADF receivers primarily for making non-precision instrument approaches to some airports. It has direction finder (DF) capability on UHF, VHF-AM, and VHF-FM to help it locate distress signals.

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## Section D. Airplanes, Continued

### **D.5.b.(1)(f) Communications**

Six radios make up the communications suite on the HU-25A. Two high frequency (HF) radios are used for long-range communications. Secure communications on HF advanced narrow band digital voice terminal (ANDVT) are available. Two very high frequency (VHF) AM radios are used primarily for air traffic control. A single ultra high frequency (UHF) radio is available and is equipped with KY-58 (VINSON) secure voice capability. A single DES-capable VHF-FM radio is also available. The HU-25A has a loud hailer that provides 700 watts of audio output through an array of six speakers. They are capable of producing audio output in the form of a siren, a trill, or voice, which is useful in gaining the attention of people on board a vessel that have not responded to radio calls.

### **D.5.b.(1)(g) Sensors**

Air stations routinely equip HU-25As with 35mm cameras and video camcorders for documentation of observations. NVGs may be used by scanners to maintain visual contact with a target at night, but they are not very effective for night searching. HU-25As are equipped with APS-127 airborne radar for searching and weather avoidance.

### **D.5.b.(2) HU-25C**

The HU-25C was originally developed for the air intercept mission. It is configured very similar to the HU-25A. Any differences are noted below.

### **D.5.b.(2)(a) Crew**

Same as configuration for HU-25A.

### **D.5.b.(2)(b) Performance**

Same as A model.

### **D.5.b.(2)(c) Range and Endurance**

In its normal SAR configuration, the HU-25C has a marginally shorter range and less endurance due to the increased weight of the radar, FLIR, camera, sensor turret, and tactical workstation.

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## Section D. Airplanes, Continued

<b>D.5.b(2)(d) Fuel</b>	The increased weight of the mission sensors reduces the maximum fuel load of the HU-25C to approximately 9500 pounds of fuel.
<b>D.5.b(2)(e) Navigation</b>	Same as A model.
<b>D.5.b(2)(f) Communications</b>	Same as A model, except that the HU-25C has, COTHEN, and MILSATCOM.
<b>D.5.b(2)(g) Sensors</b>	<p>The HU-25C uses the AN/APG-66V(2) digital Doppler radar with air-to-air, surface search, weather detection, and ground mapping capabilities. Additionally, the aircraft is equipped with a 16-DSI-sensor turret, housing a third generation FLIR and a day color surveillance camera. The FLIR provides a video presentation based on infrared or heat signature, which can be useful for determining surface and airborne contact type and monitoring activity during both day and night. While an infrared sensor generally cannot read names and numbers, under certain conditions there may be a heat differential that makes this possible. The day camera has a 40-degree field of view, making it useful for daytime detection and identification of contacts. Both the FLIR and color camera have an excellent zoom feature, enabling the aircraft to standoff from contacts at a sizeable distance. All three sensors—the APG-66, FLIR, and camera are fully integrated and can be commanded to point at the same position as any of the other sensors. While the APG-66 is designed as an air intercept radar to locate and track suspect aircraft, it has a very effective surface search mode that, working as a package with the FLIR and camera, provides a very powerful surface patrol and surveillance capability.</p>
<b>D.5.b(2)(h) Tactical Work Station</b>	As part of the sensor upgrade in 2002, the HU-25C has a tactical work station that integrates the three sensors above, provides a geographic map display, can simultaneously record any two of the sensors on a super-VHS video cassette, allows the operator to store, retrieve, manipulate and transmit sensor images, and enables transmission and receipt of text messages with other units which are suitable equipped.

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## Section D. Airplanes, Continued

### D.5.b.(3) HU-25D

#### D.5.b(3)(a) Crew

Same as configuration for HU-25A.

#### D.5.b(3)(b) Performance

Same as A model.

#### D.5.b(3)(c) Range and Endurance

In its normal SAR configuration, the HU-25D has a slightly shorter range and less endurance than the A model due to the increased weight of the FLIR, camera, sensor turret, and tactical work station.

#### D.5.b(3)(d) Fuel

The increased weight of the mission sensors reduces the maximum fuel load of the HU-25D to approximately 9500 pounds of fuel.

#### D.5.b(3)(e) Navigation

Same as A model.

#### D.5.b(3)(f) Communications

Same as A model, except that the HU-25D has MILSATCOM.

#### D.5.b(3)(g) Sensors

The HU-25D uses the same FLIR and day color camera as the HU-25C, however the D model has the APS-143V(3) radar installed. Similar in concept to the C-130's APS-137, the APS-143 provides both superior detection quality and superior detection when compared to other radars. The APS-143 is a tri-mode radar, possessing normal surface detection mode, ISAR or contact "imaging" mode, and weather display mode. This radar can also simultaneously track up to 30 contacts, with the ability to dead reckon those contacts that are no longer within the radar's field of view.

#### D.5.b(3)(h) Tactical Work Station

Same functionalities as the HU-25C.

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## Section D. Airplanes, Continued

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### D.5.c. C-37A

A single C-37A aircraft is assigned to Coast Guard Air Station Washington at Ronald Reagan National Airport. Its mission is to provide transportation for Coast Guard and DOT officials who have bona fide communications or security needs or exceptional scheduling requirements. It may also be used for other official transportation of passengers or small cargo if such use is cost effective or no aviation service is reasonably available to fulfill the traveler's requirements. The C-37A (a military version of the Gulfstream V business jet) is capable of nonstop, transcontinental flight to anywhere in the world. To use the C-37A in support of Coast Guard missions, direct requests to Air Station Washington. Outside normal business hours, make such requests to Flag Plot. Final approval for C-37A missions must be obtained from the Commandant (G-OCA) before the missions can be executed.

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### D.5.c.(1) Crew

The normal flight crew is two pilots and two crewmembers. Each day one complete flight crew is ready to be airborne within three hours of notification. Naturally, more complex missions, such as those requiring international clearances, may require more than three hours of planning. When they are deployed away from the air station, the crew carries cellular telephones so they can receive immediate notification of schedule changes.

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### D.5.c.(2) Performance

The aircraft usually cruises at a true air speed of 488 knots while maintaining altitudes up to flight level 510 (approximately 51,000 feet). It is considered to have a maximum range of 6,500 nautical miles, or a maximum flight endurance of approximately 14 hours.

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## Section D. Airplanes, Continued

<b>D.5.c.(3) Passengers and Cargo</b>	The C-37A carries 12 passengers in a normal seating configuration. Cargo capacity is limited to items that can fit through the main entrance or baggage doors. The maximum payload (including passengers and cargo) is approximately 6,500X pounds.
<b>D.5.c.(4) Navigation</b>	The C-37A has a state of the art navigation system centered around dual GPS receivers. System components include dual VOR receivers, a TACAN receiver, GPWS and HUD with EVS, all integrated into the flight management system making the aircraft RVSM and CAT II certified
<b>D.5.c.(5) Communications</b>	The C-37A can provide worldwide secure voice and secure data communications. The suite includes HF, UHF, VHF-AM, and VHF-FM radios. Furthermore, communications can be established worldwide using both military and commercial SATCOM capabilities; they can be accomplished using STU III encryption; and they can be conducted in the air by means of a flight phone. A Coast Guard standard workstation with fax modem capabilities is another feature of the communications suite.
<b>D.5.c.(6) Sensors</b>	The C-37A has no sensor capabilities.
<b>D.5.c.(7) Equipment</b>	The C-37A has an auxiliary power unit (APU) for ground electrical power and air conditioning, which makes it suitable to act as a self-supporting, transportable communications, command, and control center. Additionally, the C-37A is equipped with a galley and lavatory facilities.

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## Section D. Airplanes, Continued

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### D.5.d. VC-4A

A single VC-4A, a military version of the Gulfstream I aircraft, is assigned to Coast Guard Air Station Miami. Its mission is to provide logistics support for all Coast Guard missions, though it is primarily used in support of the Seventh District. However, it may also be used for official transportation of passengers or small cargo if such use is cost effective or no aviation service is reasonably available to fulfill the traveler's requirements. Request to use the VC-4A in support of Coast Guard missions should be directed to the Seventh District Logistic Coordinator. Outside normal business hours, such requests should be made to the Seventh District Operations Center.

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### D.5.d.(1) Crew

The normal flight crew is two pilots and one crewmember. The VC-4A does not maintain a readiness requirement. All flights are scheduled in advance; however, urgent missions can be accomplished with adequate notice.

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### D.5.d.(2) Performance

The aircraft usually cruises at a true airspeed of 250 knots while maintaining altitudes up to FL 250 (approximately 25,000 feet). It is considered to have a maximum range of 1,000 NM, or a maximum flight endurance of approximately six hours.

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### D.5.d.(3) Passengers and Cargo

The VC-4A carries 11 passengers in a normal seating configuration. Cargo capacity is limited to items that can fit through the main entrance or baggage doors. The maximum payload (including passengers and cargo) is approximately 3,000 pounds.

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### D.5.d.(4) Navigation

GPS is the primary long-range navigation system.

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## Section D. Airplanes, Continued

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**D.5.d.(5)  
Communications**

The VC-4A has limited communications; only UHF and VHF-AM radios are available.

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**D.5.d.(6) Sensors**

The VC-4A has no sensor capabilities.

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**D.5.d.(7)  
Equipment**

The VC-4A has an auxiliary power unit (APU) for ground electrical power and air conditioning, making it suitable as a self-supporting aircraft. Additionally, the VC-4A is equipped with a full galley and lavatory facilities.

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## **APPENDIX C: EXCERPTS FROM DOT ORDER 6050.1 (SERIES)**

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## **Appendix C**

### **Management and Use of Department of Transportation Aircraft**

#### **Overview**

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##### **Introduction**

This appendix consists of relevant excerpts from DOT Order 6050.1 (series), incorporated verbatim into this Manual, as well as guidelines for Senior Federal Travelers.

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##### **In this appendix**

This appendix is divided into seven sections:

- Excerpts from DOT Order 6050.1 (series)
  - Attachment 1: Cost Comparisons with Commercial Transportation
  - Attachment 2: Standard Personnel Salaries
  - Attachment 3: Estimated Hourly Variable Cost Rates for Selected DOT Aircraft Flight Hours
  - Attachment 4: Guidelines for Senior Level Travel Report
  - Senior Federal Travel Form
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**U.S. Department of  
Transportation**

Office of the Secretary  
of Transportation



**ORDER**

DOT 6050.1B

1-15-93

Subject: **MANAGEMENT AND USE OF DEPARTMENT OF  
TRANSPORTATION AIRCRAFT**

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## **Section 1. Purpose**

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This order prescribes Department of Transportation (DOT) policies and procedures for the management and use of DOT aircraft. It implements applicable Governmentwide aircraft guidance from the Office of Management and Budget (OMB) and the General Services Administration (GSA).

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## **Section 2. Cancellation**

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### **Cancellation**

DOT 6050.1A, Use of Department of Transportation Aircraft, of 12-29-89.

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## **Section 3. References**

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### **3.a.**

OMB Circular A-126 (Revised), Improving the Management and Use of Government Aircraft, of 5-22-92, which was issued to minimize cost and improve the management and use of Government aviation resources and to ensure that agencies rely on commercial airline or aircraft services to meet their aircraft support needs where possible and cost effective.

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### **3.b.**

Federal Property Management Regulations (FPMR) 101-37, Government Aviation Administration and Coordination, which provides policies and procedures on accounting for aircraft costs, cost comparisons for acquiring and using aircraft, use of aircraft to transport passengers or cargo, and reporting of an agency's inventory of aircraft and related facilities as well as aircraft cost and utilization data. The FPMR also covers accident and incident reporting and investigation.

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## Section 4. Definitions

<b>4.a Departmental Elements</b>	The operating administrations and the Office of the Secretary (OST).
<b>4.b. DOT Aircraft</b>	Includes any owned, leased, rented, or chartered aircraft held and/or operated by the U.S. Coast Guard (USCG), the Federal Aviation Administration (FAA), or any other departmental element.
<b>4.c. DOT Senior Level Officials</b>	For purposes of this order, the term DOT senior level officials refers to the Secretary of Transportation, the USCG Commandant, and the FAA Administrator as well as the Deputy Secretary for Transportation, the USCG Vice Commandant, and the FAA Deputy Administrator when these officials are representing their principals.
<b>4.d. Senior Federal Officials</b>	Departmental and other Federal employees having a rate of pay equal to or greater than the minimum rate of basic pay for the senior Executive Service. USCG officers serving in the pay grades of 0-9 or 0-10 are included in this definition.
<b>4.e. Official Transportation</b>	Transportation to meet mission requirements, required use transportation, and other transportation for the conduct of a departmental element's business.
<b>4.f. Mission Requirements</b>	Those activities that constitute the discharge of a departmental element's official responsibilities. Such activities include, but are not limited to, the transport of troops and/or equipment, training, evacuation (including medical evacuation), intelligence and counter narcotics activities, search and rescue, transportation of prisoners, use of defense attaché- controlled aircraft, flight inspection, aeronautical research and space and science applications, and other such activities. For purposes of this order, mission requirements do not include official transportation to give speeches, attend conferences or meetings, or make routine site visits.
<b>4.g. Required Use</b>	Required Use of a DOT aircraft for the transportation of a Departmental Officer or employee where the use of the DOT aircraft is required because of bona fide communications or security needs of the departmental element or exceptional scheduling requirements.

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## Section 4. Definitions, Continued

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<b>4.h. Passengers</b>	Includes all persons transported on a DOT aircraft except the aircraft crew and those persons whose presence on the aircraft is essential or directly related to the official purpose of the flight. Nevertheless, for purposes of determining if the flight involves transportation, persons including the aircraft crew are considered to be passengers if they disembark the aircraft to perform an official administrative function such as attending a conference or meeting other than that which is necessary to the official purpose of the flight (e.g., a flight inspection coordination meeting at an airport).
<b>4.i. Non-Official Travelers</b>	Includes all persons for whom a departmental element is not authorized to pay or reimburse the transportation costs or other travel expenses for a particular trip. Excluded from this definition are Federal travelers from other agencies on official Government business who are being transported on DOT aircraft.
<b>4.j. Full Coach Fare</b>	A coach fare available to the general public between the day that the travel was planned and the day the transportation occurred.
<b>4.k. Actual Cost</b>	All costs associated with the use and operation of a DOT or other Government aircraft in accordance with Attachment A of OMB Circular A-126.

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## Section 5. Background

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OMB Circular A-126, Improving the Management and Use of Government Aircraft, was revised recently to restrict the operation of Government aircraft to defined official purposes; restrict transportation on Government aircraft; require special review of such transportation on Government aircraft by senior officials or non-Federal travelers in certain circumstances described; and codify policies for reimbursement for the use of Government aircraft. In addition to implementing the OMB guidance, this order incorporates policy and procedural changes to improve the management and use of DOT aircraft.

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## Section 6. Scope

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### 6. Scope

This order applies to:

- (1) all DOT aircraft; and
  - (2) all aircraft related services operated by or for departmental elements.
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## Section 7. Policies

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The following policies apply to the management and use of DOT aircraft.

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### 7.a.

DOT aircraft shall be utilized only for official purposes which include (i) mission requirements and (ii) other official transportation. There shall be no stopovers, diversions, rerouting, fuel stops, etc., for the personal convenience or travel desires of any DOT official, employee, or other passenger. This does not preclude reasonable stopovers (e.g., refueling stops) that are prudent or necessary for reasons of safety or mission accomplishment.

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### 7.b.

The number and size of DOT aircraft acquired by a departmental element and the capacity of those aircraft to carry passengers and cargo shall not exceed the level necessary to meet the departmental element's mission requirements.

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### 7.c.

Departmental elements shall use their aircraft in the most cost-effective way to meet their requirements.

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### 7.d.

All DOT aircraft operations shall be accomplished in airworthy aircraft by qualified flight crews. All practical and necessary steps shall be taken in aircraft operations to avoid loss of life, personal injury property loss, or mission failure.

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### 7.e.

All applicable requirements of OMB Circular A-126 must be met including all requirements related to approving the use of DOT aircraft for official transportation and approving required use transportation and other transportation of senior Federal officials, members of the families of such senior Federal officials, and non-Federal travelers.

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## Section 7. Policies, Continued

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- 7.f.** All applicable requirements of OMB Circular A-76 shall be met prior to purchasing, leasing, or otherwise acquiring DOT aircraft and related services to ensure that these aircraft and services cannot be obtained from and operated by the private sector more cost effectively.
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- 7.g.** The continuing need for all DOT aircraft and the cost effectiveness of DOT aircraft operations shall be reviewed biennially in accordance with the requirements of OMB Circular A-76. Any DOT aircraft which are not fully justified by these reviews shall be reported as excess and released.
- 
- 7.h.** Commercial transportation shall be used for the transportation of passengers and/or cargo to the maximum extent practicable consistent with effectively and economically meeting transportation requirements. Use of DOT aircraft for transportation of passengers and/or cargo including such use on a space available basis shall be in accordance with the requirements of this order.
- 
- 7.i.** DOT aircraft may not be used for political transportation, except that travelers may participate in incidental political activities that add no additional costs (other than costs reimbursed fully by the political entity) and require no additional stops to fulfill the official purpose of the trip. Reimbursement with respect to incidental political activity of the traveler shall be made in accordance with OMB Circular A-126 and other applicable guidance.
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## Section 8. Responsibilities

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- 8.a. Assistant Secretary for Administration** The Assistant Secretary for Administration is responsible for coordinating with OMB and GSA in the development of Governmentwide aircraft guidance and developing and overseeing the implementation of departmental policies and procedures. The Assistant Secretary also has oversight responsibilities for the procurement of aircraft in accordance with applicable guidance, the reviews of continuing need for DOT aircraft, compliance with OMB Circular A-76 requirements regarding DOT aircraft and related services, and compliance with OMB Circular A-123, Internal Control Systems, regarding internal control reports of weaknesses in aircraft programs.
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## Section 8. Responsibilities, Continued

### **8.b. Assistant Secretary for Governmental Affairs**

The Assistant Secretary for Governmental Affairs is responsible for departmental review and approval of requests from congressional travelers to use DOT aircraft.

### **8.c. Assistant Secretary for Budget and Programs**

The Assistant Secretary for Budget and Programs is responsible for review of planned DOT aircraft acquisition and other aircraft related actions as part of the budgetary process. The Assistant Secretary is also responsible for evaluating and submitting to OMB, as part of the next departmental budget submission, a copy of the results of each departmental element's biennial review of the continuing need for all of their aircraft and the cost effectiveness of their aircraft operations in accordance with the requirements of OMB Circular A-76.

### **8.d. USCG Commandant, FAA Administrator, and Heads of other Departmental Elements**

The USCG Commandant, FAA Administrator, and Heads of other Departmental Elements (to the extent applicable) are responsible for developing policies and procedures to implement this order and for ensuring that all use of DOT aircraft is in the best interest of the Federal Government. Additionally, these officials and all other DOT officials/ employees with statutory authority to procure aircraft shall ensure that:

#### **8.d.(1)**

Clear accountability for management and use of DOT aircraft is established at a senior management level within the departmental element.

#### **8.d.(2)**

Internal policies and procedures for procuring aircraft and related services are consistent with the requirements of OMB Circular A-76 and A-126.

#### **8.d.(3)**

Aircraft programs comply with the internal control requirements of OMB Circular A-123 and that aircraft programs are in the departmental element's Management Control Plan.

#### **8.d.(4)**

Aircraft information systems conform to the generic data and reporting standards developed by GSA. These systems must be implemented within one year from the issuance of the GSA standards.

#### **8.d.(5)**

Cooperation is provided to GSA through participation in interagency working groups and other means to assist in the development of aircraft management policies and standards as required by OMB Circular A126 and in the collection of aircraft information and other requirements of FPMR 101-37.

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## Section 9. Authorized Use of DOT Aircraft

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### 9.a. General

DOT aircraft shall be operated only for official purposes which include:

- mission requirements; and
  - other official transportation.
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### 9.b. Use of DOT Aircraft for Mission Requirements

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#### 9.b.(1) General

DOT aircraft are used to support defined DOT programs which must be accomplished to carry out DOT statutory responsibilities. Within the USCG, this includes programs such as search and rescue, marine safety, law enforcement, maintenance of a state of readiness to function as a specialized service in the Navy, environmental response, ice operations, aids to navigation, and boating safety. Within the FAA, this includes programs such as flight inspection, training, accident investigation, support (evaluation; recent flight experience (currency); proficiency, qualification, and standardization; and transportation), and research and development that are conducted to carry out responsibilities for management, operation, maintenance, and use of the National Airspace System in a safe and efficient manner.

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#### 9.b.(2) Approval Authority for Mission Requirements Flights

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##### 9.b.(2)(a)

All mission requirements flights on DOT aircraft must be approved in accordance with procedures established by the departmental element holding and operating the aircraft. In no case shall the approving authority be below the level of USCG Captain 0-6 (or Commanding Officer of a unit with aircraft or the Duty Officer), FAA GS/GM-15 (or Facility manager), or other equivalent level in a departmental element.

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##### 9.b.(2)(b)

Officials ranked below the DOT senior level officials, the USCG area/district commanders, the commanding officers of units with aircraft, the FAA regional administrators/center directors, or other equivalent positions in a departmental element shall not approve their own mission flights.

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## Section 9. Authorized Use of DOT Aircraft, Continued

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- 9.b.(2)(c) On an exception basis, persons below the levels in subparagraphs (2)(a) and (b) above may approve their own mission flights when prior approval is not practicable (e.g., unscheduled flights). However, such flights shall also be approved by a higher approval authority as soon as possible after the flight.
- 
- 9.b.(2)(d) Whenever a DOT aircraft used to fulfill a mission requirement is used also for transportation of passengers and/or cargo, such transportation is subject to all approval and other applicable requirements of this order relating to the transportation of passengers and/or cargo.
- 
- 9.b.(3) Policy and Procedural Guidance Policy and procedural guidance for use of DOT aircraft for support of DOT programs shall be consistent with this order and shall be developed and implemented by the departmental element holding and operating the DOT aircraft. All use of DOT aircraft for transportation of passengers and/or cargo shall be governed by this order.
- 
- 9.c. Use of DOT Aircraft for Transportation of Passengers and/or Cargo**
- 
- 9.c.(1) General
- 
- 9.c.(1)(a) Commercial airline (including charter) or aircraft service shall be used for transportation of passengers and/or cargo to the maximum extent practicable consistent with effectively and economically meeting transportation requirements. DOT aircraft, however, may be used to transport passengers and/or cargo in accordance with this order.
- 
- 9.c.(1)(b) Approval of passenger and/or cargo flights is discussed in paragraph 10 of this order. USCG, FAA, or other departmental elements implementing directives to this order shall specify in detail the authorized positions to approve passenger and/or cargo flights. Further delegation of this approval authority is not permitted.
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## Section 9. Authorized Use of DOT Aircraft, Continued

9.c.(1)(c)	All use of DOT aircraft for the purpose of transportation of passengers and/or cargo shall be for official purposes only. DOT aircraft shall never be scheduled or used for the personal travel desires of any DOT official/employee or other passenger. When DOT aircraft are used for transportation, there shall be no stopovers, diversions, rerouting, fuel stops, etc., for anything that is or could appear to be for the personal use or convenience of any DOT official/employee or other passenger. Documentation of the justification for use of DOT aircraft is discussed in paragraph 13 below.
9.c.(2) Cost Comparisons	
9.c.(2)(a) General	When the use of a DOT aircraft for the primary purpose of transportation of passengers and/or cargo is considered, an advance written cost comparison shall be performed unless otherwise stated in this order. See Attachment 1, Cost Comparisons with Commercial Transportation. The departmental element requesting use of the aircraft is responsible for performing the cost comparison.
9.c.(2)(b) Required Use Transportation	Cost comparisons are not required for required use transportation provided:
9.c.(2)(b)(1)	A determination is made under paragraph 10a below that required use transportation is appropriate;
9.c.(2)(b)(2)	The flight record contains adequate written justification showing clearly the reasons for use of DOT aircraft under these conditions; and
9.c.(2)(b)(3)	The flight record also contains a copy of Attachment 2, Estimated Hourly Variable Cost for Selected DOT Aircraft, or otherwise shows the approximate flight hour cost of the particular aircraft.
9.c.(2)(c) Secondary Purpose of Transportation in Conjunction with Mission Requirements	Cost comparisons are not required whenever DOT aircraft are used for the secondary purpose of transportation of passengers and/or cargo in conjunction with a mission flight since such use would, in effect, be a cost savings.

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## Section 9. Authorized Use of DOT Aircraft, Continued

### 9.c.(3) Certification Requirement for Certain Space Available Transportation

There is a special certification requirement whenever a DOT aircraft used to fulfill a mission requirement is used also to Transport senior Federal officials, members of the families of such senior Federal officials, or other non-Federal travelers on a “space available” basis (except as authorized under 10 USC 4744 (military space available program) and regulations implementing that statute). The certifying official shall be the same individual within the departmental element who is the approving authority for the mission flight (see paragraph 9b(2)). This individual must certify in writing prior to the flight that the aircraft is scheduled to perform a bona fide mission activity and that the minimum mission requirements have not been exceeded in order to transport such “space available” travelers. Falsification of this certification or other portions of the flight record could result in criminal prosecution under 18 USC 1001 or appropriate disciplinary action. In special emergency situations, an after-the-fact written certification by the departmental element is permitted. The original of the written certification shall be included as part of the official flight records.

### 9.c.(4) Policy and Procedural Guidance for Transportation

Specific policy and procedural guidance for use of DOT aircraft for transportation of passengers and/or cargo, including reimbursement requirements, is contained in paragraphs 10 through 12. Documentation of aircraft use, retention of records, and special reporting requirements are contained in paragraph 13.

## Section 10. Transportation of Passengers/Approval Requirements

The following policies and procedures apply when DOT aircraft are used for official transportation. The specific approval requirements for each passenger being transported are determined by the type of passenger (e.g., a senior Federal official) and the basis of the transportation which will be provided (e.g., required use).

### 10.a. Required Use Transportation

This is use of DOT aircraft for transportation because of bona fide communications or security needs of the departmental element or exceptional scheduling requirements.

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## Section 10. Transportation of Passengers/Approval Requirements, Continued

10.a.(1) General	Required use transportation may sometimes be required by certain DOT officials because of bona fide communications or security needs of the departmental element or exceptional scheduling requirements. Once required use transportation is determined to be necessary for a DOT official, then usage of the DOT aircraft is also appropriate for staff members who are accompanying the DOT official.
10.a.(2) Approval Requirements	All required use transportation on DOT aircraft must be approved.
10.a.(2)(a) Trip-by-Trip Approval	Use of DOT aircraft for required use transportation must be approved in advance and in writing. A DOT official/employee must obtain written approval for all required use transportation on a trip-by-trip basis from the departmental element's senior legal official or his/her principal deputy. In special emergency situations, an after-the-fact written approval by a departmental element is permitted.
10.a.(2)(b) Blanket Approval	In lieu of a trip-by-trip approval, the Secretary, however, may determine that all transportation for an official or transportation in specified categories qualifies as required use transportation. Such determinations are made only upon a written finding that the ongoing communication or security requirements of the official clearly dictate that all official transportation qualifies as required use transportation. To obtain such a determination, the official must submit a memorandum to the Secretary providing written justification why his/her ongoing communications or security requirements are such that they dictate the need for required use transportation. Because of the ongoing communications and security requirements of the USCG as a military service, the Secretary has made the determination that all official transportation for the USCG Commandant, Vice Commandant, Atlantic Area Commander, and Pacific Area Commander qualifies as required use transportation.
10.a.(3) Reimbursement for Required Use Transportation	The Government shall be reimbursed as follows:

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## Section 10. Transportation of Passengers /Approval Requirements, Continued

10.a.(3)(a)	When required use transportation also includes “space available” transportation other than for the conduct of official Government business, the Government shall be reimbursed in accordance with paragraph 10.d.(2) below.
10.a.(3)(b)	When required use transportation also involves official travel in which incidental political activity occurs, the Government shall be reimbursed in accordance with OMB Circular A-126 and other applicable guidance.
10.a.(4) Reporting Requirements	Required use transportation of senior Federal officials, members of the families of such senior Federal officials, and non-Federal travelers which is non-mission travel must be reported in accordance with paragraph 13.c below.
<b>10.b. Transportation Not to Meet Mission Requirements or Required Use Travel</b>	
10.b.(1) General	This is official transportation on DOT aircraft which may be approved only if such transportation is cost effective or if no commercial airline (including charter) or aircraft service is reasonably available to effectively fulfill the departmental element’s requirement (i.e., able to meet the traveler’s departure and arrival requirements within a 24-hour period unless the traveler demonstrates that extraordinary circumstances required a shorter period).
10.b.(2) Approval Requirements	

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## Section 10. Transportation of Passengers/Approval Requirements, Continued

10.b.(2)(a) General	All transportation not to meet mission requirements or required use travel on DOT aircraft must be approved. When applicable, such transportation must be documented on an official travel authorization. Except as provided in subparagraph (b) below, such transportation must be approved by at least one organizational level above the person(s) traveling. However, the applicable approval authority shall be no lower than:
10.b.(2)(a) <u>1</u>	<i>Transportation of Passengers Originating from the Washington, DC, Area.</i> The USCG Vice Commandant, FAA Deputy Administrator, or other equivalent position in a departmental element.
10.b.(2)(a) <u>2</u>	<i>Transportation of Passengers Originating from outside the Washington, DC, Area.</i> The approval authority shall be established by the departmental element and shall be no lower than one level below the approval level in subparagraph (a) <u>1</u> above.
10.b.(2)(b) Special Approval Requirements	Use of DOT aircraft for such transportation by the following categories of people must be approved in advance and in writing:
10.b.(2)(b) <u>1</u>	Senior Federal officials;
10.b.(2)(b) <u>2</u>	Members of the families of such senior Federal officials; and
10.b.(2)(b) <u>3</u>	Non-Federal travelers.
10.b.(2)(b), continued	Such approvals may be issued only on a trip-by-trip basis and must be signed by the departmental element's senior legal official or his/her principal deputy. In special emergency situations, an after-the-fact written approval by the departmental element is permitted.
10.b.(3) Reimbursement for Space Available Transportation	Space available travel for other than the conduct of official business is subject to the reimbursement requirements in paragraph d(2) below for "space available" transportation.

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## Section 10. Transportation of Passengers/Approval Requirements, Continued

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### 10.b.(4) Reporting Requirements

Transportation that is not to meet mission requirements or required use transportation is subject to special reporting requirements if it involves non-mission travel by senior Federal officials, members of the families of such senior Federal officials, and non-Federal travelers. Such non-mission travel must be reported in accordance with paragraph 13c below.

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### 10.c. Space-Available Transportation/ Secondary Purpose of Transportation in Conjunction with Mission Requirements

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#### 10.c.(1) General

When DOT aircraft are performing mission requirements, there may be an opportunity for space available transportation/use for the secondary purpose of transportation. (NOTE: For purposes of this order, mission requirements do not include official transportation to give speeches, attend conferences or meetings, or make routine site visits.) The need for space available transportation shall not serve as the basis for establishing mission requirements. Space available transportation must be under conditions where the aircraft has been scheduled to perform a bona fide mission activity and the minimum mission requirements have not been exceeded. Space available transportation must also be certified in accordance with paragraph 9c(3) whenever a DOT aircraft used to fulfill a mission requirement is used also to transport senior Federal officials, members of the families of such senior Federal officials, or other non-Federal travelers.

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#### 10.c.(2) Approval Requirements

*Continued on next page*



## Section 10. Transportation of Passengers/Approval Requirements, Continued

10.c.(2)(a) General	Space available transportation/secondary purpose of transportation in conjunction with mission flights of DOT aircraft must be approved and, when applicable, documented on an official travel authorization. Except as provided in subparagraph (b) below, such transportation must be approved by at least one organizational level above the person(s) traveling. Also, the applicable approval authority shall be no lower than:
10.c.(2)(a) <u>1</u>	<i>Transportation of Passengers Originating from the Washington, DC, Area.</i> The USCG Office Chiefs, FAA Associate Administrators, or other equivalent positions in a departmental element.
10.c.(2)(a) <u>2</u>	<i>Transportation of Passengers Originating from Outside the Washington, DC, Area.</i> The approval authority shall be established by the departmental element and shall be no lower than one level below the approval level in subparagraph (a) <u>1</u> above.
10.c.(2)(b) Special Approval Requirements	
10.c.(2)(b) <u>1</u>	When the following categories of people are transported on a mission flight, such transportation must be approved in advance and in writing:
10.c.(2)(b) <u>1 a</u>	Senior Federal officials;
10.c.(2)(b) <u>1 b</u>	Members of the families of such senior Federal officials; and
10.c.(2)(b) <u>1 c</u>	Non-Federal travelers.
10.c.(2)(b) <u>2</u>	Such approvals must be obtained on a trip-by-trip basis and be signed by the departmental element's senior legal official or his/her principal deputy. In special emergency situations, an after-the-fact written approval by the departmental element is permitted.

*Continued on next page*





## Section 10. Transportation of Passengers/Approval Requirements, Continued

10.c.(2)(b) <u>3</u>	As discussed in paragraph 13c below, information must be reported semiannually to GSA on each use of DOT aircraft for non-mission transportation of people in the above categories. Transportation of such individuals that is space available transportation for other than the conduct of official Government business is subject to the reimbursement requirements in this order for space available transportation.
<b>10.d. Space Available Transportation</b>	
10.d.(1)	Travelers may not use DOT aircraft for space available transportation basis unless:
10.d.(1)(a)	The aircraft is already scheduled for use for an official purpose;
10.d.(1)(b)	Such space available use does not require a larger aircraft than needed for the official purpose;
10.d.(1)(c)	Such space available use results only in minor additional cost to the Government; and
10.d.(1)(d)	Reimbursement is provided as set forth in subparagraph (2) below.
10.d.(2) Reimbursement for Space Available Transportation	For space available transportation other than for the conduct of official Government business, whether on mission or other flights, the Government shall be reimbursed at the full coach fare except (i) as authorized under 10 USC 4744 and regulations implementing the statute; and (ii) by civilian employees and their dependents in remote locations (i.e., locations not reasonably accessible to regularly scheduled commercial airline service) specifically identified in the departmental element's implementing directive.



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## **Section 11. Congressional Transportation**

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All requests for transportation on DOT aircraft for members of Congress, their staffs, or spouses and/or dependents shall be reviewed and approved by the Assistant Secretary for Governmental Affairs (I). If a departmental element receives a request for such travel, the request shall be promptly forwarded to 1-1 for review and approval.

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## **Section 12. Non-Official Travelers**

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### **12.a. General**

The transportation of spouses (except for those of the DOT senior level officials), dependents, and other non-official travelers as passengers aboard DOT aircraft is generally prohibited. Official transportation of such individuals (including the DOT senior level officials, spouses) is permitted only if unquestionably in the best interest of the Federal Government (e.g., under circumstances in which the spouse of a DOT senior level official is accompanying that official on a mission in which the spouse is actually to participate, or when such transportation is deemed in the national interest as desirable because of a diplomatic benefit to the country). Spouses and dependents may also be transported on DOT aircraft when they are in an official transportation status, e.g., permanent change of station travel. Space available transportation is permitted (i) when authorized under 10 USC 4744 and regulations implementing that statute, or (ii) by civilian employees and their dependents in remote locations in accordance with subparagraph b below, or (iii) when such transportation is approved in accordance with this order and reimbursement is made in accordance with subparagraph d below.

---

### **12.b. Remote Locations**

The transportation of DOT officials/employees and their families to and from remote locations (i.e., locations not reasonably accessible to regularly scheduled commercial airline service) for reassignment, medical attention, or other legitimate purposes is permitted only with proper approval. The remote locations must be specifically identified in the departmental element's implementing directive.

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## Section 12. Non-Official Travelers, Continued

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### **12.c. Approval Authority**

Recurring classes of passengers approved as eligible for space available transportation shall be identified in the USCG, FAA, or other departmental element implementing directives. For any transportation which involves spouses, dependents, and other non-official travelers (except for blanket approval of recurring situations in remote locations and recurring classes of passengers specifically identified in the USCG, FAA, or other departmental element implementing directives), the approval authority must not be lower than the USCG Vice Commandant, the FAA Deputy Administrator, or other equivalent position in the departmental element. However, if such transportation involves senior Federal officials, members of the families of such senior Federal officials, or non-Federal travelers, the approval of the departmental element's senior legal official or his/her principal deputy is required in accordance with paragraph 10c(2)(b).

---

### **12.d. Reimbursement**

When non-official travelers are transported on DOT aircraft on a space available basis for other than the conduct of official Government business, whether on mission or other flights, the Government shall be reimbursed at the full coach fare except (i) as authorized under 10 USC 4744 and regulations implementing the statute; and (ii) by civilian personnel and their dependents in remote locations (i.e., locations not reasonably accessible to regularly scheduled commercial airline service).

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## **Attachments to Appendix C**



## Attachment 1: Cost Comparisons with Commercial Transportation

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### **a. General**

DOT aircraft may be used for official transportation of passengers and/or cargo when such use is cost effective based on a cost comparison with use of commercial transportation. Except as provided elsewhere in this order, DOT aircraft shall be used for transportation only when the variable cost of using a DOT aircraft is not more than the cost of using commercial airline (including charter) or aircraft service.

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### **b. Required Use Transportation**

Cost comparisons are not required when DOT aircraft are used for required use transportation in accordance with this order. The flight records shall contain adequate written justification showing clearly the reasons for use of DOT aircraft under these conditions. Further, the flight record shall also contain a copy of Attachment 2, Estimated Hourly Variable Costs for Selected DOT Aircraft, or otherwise show approximate flight hour costs of the particular aircraft.

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### **c. Mission Requirements/ Secondary Purpose of Transportation**

Cost comparisons are not required whenever DOT aircraft are used for mission requirements/secondary purpose of transportation of passengers and/or cargo since such use would, in effect, be a cost savings.

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## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

### **d. Transportation Not to Meet Mission Requirements or Required Use Transportation**

Cost comparisons shall be performed on all transportation in this category, except use of DOT aircraft when no commercial airline (including charter) or aircraft service is reasonably available (i.e., able to meet the traveler's departure and/or arrival requirements within a 24-hour period, unless the traveler demonstrates that extraordinary circumstances require a shorter period) to fulfill effectively the departmental element's requirement. (In such cases, however, the flight record shall contain a copy of Attachment 2, Estimated Hourly variable Costs for Selected DOT Aircraft, or otherwise show approximate flight hour costs of the particular aircraft.) Cost comparisons are to be performed for each use of DOT aircraft for transportation not to meet mission requirements or required use transportation in accordance with paragraph 9c of this order. All cost comparison analyses and justifications for use of DOT aircraft for the primary purpose of transportation of passengers and/or cargo shall be included as part of the aircraft use records which are to be maintained in accordance with this order. The following criteria shall be considered in cost comparisons for use of DOT aircraft for transportation.

#### **d.(1) Passengers**

##### **d.(1)(a)**

Cost comparisons shall be made using commercial transportation cost appropriate to the travel in accordance with the guidelines in paragraph 3-0609 of DOT 1500.6A, Travel Manual. The cost of using commercial airline or aircraft services for the purpose of justifying use of DOT aircraft must be the current Government contract air fare or price or the lowest fare or price known to be available for the trip(s) in question. (When the exact itinerary is unknown, the highest contract air fare may be used.) Actual space availability of commercial transportation usually should not be considered in making the comparison since travel requirements normally are known sufficiently in advance to ensure space availability.

*Continued on next page*



## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

- 
- d.(1)(b) Cost comparisons may take into consideration such travel-related expenses as excess baggage, ground transportation, and subsistence costs (per diem or actual expenses). The value of an individual's lost work time may be considered in the calculation. For purposes of a cost comparison, the value of lost work time shall be calculated for all DOT officials/employees in an official travel status as follows:
- $$\text{Value of lost work time} = \text{Gross hourly cost (including fringe benefits)} \times \text{times the number of hours lost if commercial transportation is used.}$$
- Standardized gross hourly costs (including fringe benefits) have been developed for both DOT military and civilian officials/employees. These costs are provided as part of this appendix and may be revised as necessary.
- 
- d.(1)(c) When travelers from other Federal agencies are transported on DOT aircraft on a space available basis for official Government business to participate in the activity which serves as the basis for the DOT transportation requirement, these Federal travelers may be used in the cost comparison.
- 
- d.(1)(d) Cost comparisons shall use the variable flight hour cost for DOT aircraft developed by the departmental element. These costs shall include all of the applicable variable cost elements contained in OMB Circular A-126, Attachment B, Standard Aircraft Program Cost Element Definitions. These variable costs are contained in this appendix.
- 
- d.(1)(e) As a guide in performing proper cost comparisons, a self-explanatory cost comparison worksheet for passenger transportation and a cost comparison analysis format are provided as part of this Attachment.
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## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

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### d.(2) Cargo

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d.(2)(a) Cost comparisons shall be made between the variable cost of using a DOT aircraft and the cost of using commercial airline (including charter) or aircraft service which could fulfill effectively the cargo transportation requirement.

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d.(2)(b) DOT aircraft may be used for the transportation of cargo whenever: (1) the variable cost of using a DOT aircraft is not more than the cost of using commercial airline (including charter) or aircraft service, or (2) commercial airline (including charter) or aircraft service could not fulfill effectively the cargo transportation requirement.

---

d.(2)(c) Cost comparisons shall use the variable flight hour costs for DOT aircraft developed by the departmental element. These costs shall include all of the applicable variable cost elements contained in OMB Circular A-126, Attachment B, Standard Aircraft Program Cost Element Definitions.

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d.(2)(d) There is no format for cost comparisons for the primary purpose of transportation of cargo. The record of the cost comparison shall show:

- (1) the cost of using commercial transportation;
- (2) the cost of using DOT aircraft;
- (3) the difference between the two options (savings or cost overrun);  
and
- (4) the justification of why the DOT aircraft was used (i.e., a cost savings or an explanation of the other overriding factor for such use).

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*Continued on next page*





## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

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### **e. Cost Comparisons for Government Aircraft**

For departmental elements to make the cost comparisons necessary to justify the use of Government aircraft, the departmental element must compare the actual cost of using a Government aircraft to the cost of using commercial aircraft (including charter) or airline service. The actual cost of using a Government aircraft is either:

- (1) the amount that the departmental element will be charged by the organization that provides the aircraft; or
- (2) if the departmental element operates its own aircraft, the variable cost of using the aircraft; or
- (3) if the departmental element is not charged for the use of an aircraft owned by another departmental element, the variable cost of using the aircraft as reported to it by the departmental element holding and operating the aircraft.

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### **f. Cost Comparison and Recurring Usage**

In accordance with OMB Circular A-126, Attachment A, departmental elements that propose to use their aircraft to support recurring transportation between locations are encouraged to develop standard trip cost justification schedules. These schedules would summarize the projected costs of using one or more specific types of their aircraft to travel between selected locations as compared to using commercial aircraft (including charter) or airline service between those locations. Comparative costs for varying passenger loads would also be shown. Departmental elements that choose to use this approach would be able to see at a glance the minimum number of official travelers needed to justify the use of a particular aircraft or aircraft type for a trip between locations on the schedule. Departmental elements that are not able to use such schedules are required to do a cost comparison on a case-by-case basis.

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## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

### **COST COMPARISON ANALYSIS FORMAT**

#### **COST COMPARISON ANALYSIS**

1. Total Cost of Commercial Transportation  
(from Worksheet Part C.6.) \$ \_\_\_\_\_
2. Total Cost of Using DOT Aircraft  
(from Worksheet Part B.2-d-) \$ \_\_\_\_\_
3. Difference (1. - 2.) = \$ \_\_\_\_\_

POSITIVE DIFFERENCE = SAVINGS TO GOVERNMENT: USE OF DOT  
AIRCRAFT JUSTIFIED ON ECONOMICS

NEGATIVE DIFFERENCE = COST OVERRUN: DO NOT USE DOT AIRCRAFT  
ABSENT OTHER OVERRIDING FACTORS

#### **JUSTIFICATION/ADDITIONAL INFORMATION**

1. \_\_\_\_\_ Justified on economics based on the above cost comparison analysis.
2. \_\_\_\_\_ Transportation requirement could not be fulfilled effectively because noncommercial airline (including charter) or aircraft service was not reasonably available (this overrides the cost comparison analysis showing that commercial transportation was more expensive; justify in 5. below)
3. \_\_\_\_\_ Transportation performed for another agency under a reimbursable agreement.
4. \_\_\_\_\_ Transportation of spouse/dependent/other nonofficial traveler involved. (Justify in 5. below.)

5. Justification: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
**SIGNATURE**

\_\_\_\_\_  
**DATE**

When cost comparisons are required for the use of DOT aircraft, the Cost Comparison Analysis Format becomes part of the official flight record.



## **Attachment 1: Cost Comparisons with Commercial Transportation, Continued**

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### **COST COMPARISON WORKSHEET FOR PASSENGER TRANSPORTATION**

#### **PART A. GENERAL INFORMATION**

1. Purpose of Travel: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Date(s) of Travel: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Travel Itinerary (include dates and desired times of arrival/departure): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Special Requirements: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## COST COMPARISON WORKSHEET FOR PASSENGER TRANSPORTATION

### 5. Information on Official Passengers:

[illegible][illegible]



## Attachment 1: Cost Comparisons with Commercial Transportation, Continued

### COST COMPARISON WORKSHEET FOR PASSENGER TRANSPORTATION

#### PART B. ESTIMATED COSTS OF USING DOT AIRCRAFT

##### 1. Aircraft Information:

a. Departmental Element: \_\_\_\_\_

b. Recommended Aircraft:

<u>Type</u>	<u>Speed</u>	<u>Passenger Capacity</u>
_____	_____	_____

c. Non-availability of Aircraft (explain): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### 2. Estimated Costs (use only the applicable variable cost elements):

a. Number of Flight Hours = \_\_\_\_\_ Hours\*

b. Variable Cost Related to Flight Hours

(1) Crew Costs Variable/Hour	\$ _____
(2) Maintenance Cost Variable/Hour	\$ _____
(3) Overhaul Cost/Hour	\$ _____
(4) Fuel and Fluids/Hour	\$ _____
(5) Aircraft Lease/Rent variable/Hour	\$ _____
TOTAL ((1)+(2)+(3)+(4)+(5))	
(# of Flight Hours) =	\$ _____

c. Other Variable Costs Not Related to Flight Hours\*\*

(1) Staging Costs	\$ _____
(2) Crew Per Diem	\$ _____
(3) Landing and Tie-Down Fees	\$ _____
(4) Miscellaneous (Food, etc.)	\$ _____
TOTAL ((1)+(2)+(3)+(4)) =	\$ _____

d. Total Cost of Using DOT Aircraft

(2.b. + 2.c.) = \$ \_\_\_\_\_

\* In calculating the total number of flight hours for use in the cost comparison, additional flight hours resulting from flight legs to preposition the aircraft and return it to its home base must be included in the calculation.

\*\* In calculating other variable costs not related to flight hours, the additional costs resulting from flight legs to preposition the aircraft and return it to its home base must be included in the calculation.



# Attachment 1: Cost Comparisons with Commercial Transportation, Continued

## COST COMPARISON WORKSHEET FOR PASSENGER TRANSPORTATION

### PART C. ESTIMATED COMMERCIAL COSTS

Note: Commercial costs are to be determined using contract airfares absent other overriding factors. Specific details on possible flight arrangements may be provided as an attachment to this Part C.

1. Commercial cost/passenger \$\_\_\_\_\_ (x) Number of official  
travelers (DOT and other Federal Agency)  
\_\_\_\_\_ = Total Commercial Air Fare \$\_\_\_\_\_
2. Per Diem (if avoided by using DOT aircraft) \$\_\_\_\_\_
3. Excess baggage costs (total) \$\_\_\_\_\_
4. Group transportation/rental car/other transportation  
(if avoided by using DOT aircraft) \$\_\_\_\_\_
5. Total value of lost work time (VLWT)\* \$\_\_\_\_\_
6. Total cost of commercial transportation \$\_\_\_\_\_  
(1. + 2. + 3. + 4. + 5.)

\*Note: Value of lost work time (VLWT) = gross hourly cost (including fringe benefits) times the number of hours lost if commercial transportation is used.

VLWT Calculations (official DOT passengers only):

Rank/ Grade	Gross Cost	Hourly	Number of Passengers	Extended Cost
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
_____	_____	/hr	x	= \$
Total Gross Hourly Cost =				\$

VLWT/hour \$\_\_\_\_\_ (x) # of Hours Lost \_\_\_\_\_ = \$\_\_\_\_\_ Total VLWT  
(enter in 5. above)



## **Attachment 2: Standard Personnel Salaries and Estimated Hourly Variable Cost Rates for Selected DOT Aircraft Flight Hours**

### **Website**

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Standard personnel salaries and variable cost rates for the use of Coast Guard Aircraft change constantly. For the most up to date information the best source is the Commandant (G-CFM-2) website, located at:  
<http://cgweb.comdt.uscg.mil/g-cfp/g-cfs-2/cfs2.htm>

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## Attachment 3: Guidelines for Senior Level Travel Report

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The traveler reporting requirements apply to Senior Federal Officials and Senior Executive Branch Officials defined below.

*Senior Federal Officials (SFO).* Departmental and other Federal employees having a rate of pay equal to or greater than the minimum rate of basic pay for the Senior Executive Service. USCG officers serving in the pay grades of 0-9 or 0-10 are included in this definition.

*Senior Executive Branch Officials (SEBO).* Civilian officials appointed by the President with the advice and consent of the Senate and civilian-employees of the Executive Office of the President (EOP). (For DOT, see listing A.2 of SEBOs below).

The following instructions will help you determine whether a semiannual report on travel by certain individuals is required. Additionally, the instructions will provide guidance on certain information that is required in the semiannual report.

---

- A.** In order to determine the status of a traveler as a SFO or SEBO, the following is required:
- 

**A.1. Data collection requirements**

- a. Minimum flight record information required by DOT Order 6050.1B
- b. Name of traveler(s)
- c. Agency of traveler(s)
- d. Position of traveler(s)
- e. Grade of traveler(s)
- f. Phone number of traveler(s)

The collection of the above information will help you eliminate certain travelers from the reporting requirements (i.e., any traveler with a grade of GS/GM-15 or below is not required to be reported for this semiannual report).

---

- A.2.** If the traveler is a Department of Transportation (DOT) employee and is graded as Senior Executive Service or above, please check the following table to determine if the traveler's status should be coded as an SEBO. If traveler's status is not found in the table below, then the traveler should be coded with an SFO status.
- 

*Continued on next page*





## Attachment 3: Guidelines for Senior Level Travel Report, Continued

### SENIOR EXECUTIVE BRANCH OFFICIALS (SEBO) WITHIN DOT

<b>Office Of The Secretary:</b>	The Secretary Deputy Secretary Associate Deputy Secretary General Counsel Assistant Secretary for Policy and International Affairs Assistant Secretary for Budget and Programs Assistant Secretary for Governmental Affairs Inspector General
<b>Federal Aviation Administration:</b>	Administrator Deputy Administrator
<b>Federal Highway Administration:</b>	Administrator
<b>Federal Railroad Administration:</b>	Administrator
<b>National Highway Traffic Safety Administration:</b>	Administrator
<b>Federal Transit Administration:</b>	Administrator
<b>Saint Lawrence Seaway Development Corporation:</b>	Administrator
<b>Maritime Administration:</b>	Administrator
<b>Research And Special Programs Administration:</b>	Administrator

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**A.3.** If the traveler is a non-DOT Federal employee, it will be necessary to call the traveler's personnel office to determine the traveler's status as an SFO or SEBO.

---

**A.4.** After determining that the traveler's status meets the criteria for an SFO or SEBO, a semiannual report may be required. If a report is required it must be completed on GSA Form 3641, Senior Federal Travel Form or through the Federal Aviation Management System (FAMIS) structure and management codes for automated reporting. A form or database entry must be completed for each leg of a flight (i.e., a flight from DCA to ICT to DCA requires two forms or two database entries).

---

**B.** The following table will help you determine whether a semiannual report is required for a traveler having the status of SFO or SEBO. Additionally, the table will show certain information that is required for a particular flight.

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## Attachment 3: Guidelines for Senior Level Travel Report, Continued

PURPOSE OF TRAVELER	SFO	SEBO
<b>1. Mission requirement:</b>	<ul style="list-style-type: none"> <li>- no report required</li> <li>- no cost comparison required</li> <li>- no reimbursement required</li> </ul>	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>
<b>2. Required Use:</b>		
Mission requirement	<ul style="list-style-type: none"> <li>- no report required</li> <li>- no cost comparison required</li> <li>- no reimbursement required</li> </ul>	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>
Non-Mission <sup>3</sup>	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>
<b>3. Other Official Travel:</b>		
Official Business	<ul style="list-style-type: none"> <li>- report required</li> <li>- cost comparison required <sup>4</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>- report required</li> <li>- cost comparison required <sup>4</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>
<b>4. Space Available:</b>		
Official Business	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>- report required</li> <li>- no cost comparison required <sup>1</sup></li> <li>- no reimbursement required <sup>2</sup></li> </ul>

<sup>1</sup> Enter N/R in blocks 16 & 17 of GSA Form 3641

<sup>2</sup> Enter N/R in blocks 18 & 19 of GSA Form 3641

<sup>3</sup> Examples of non-mission travel include official transportation to give speeches, attend conferences or meetings, or make routine site visits

<sup>4</sup> Enter the traveler's allocated cost for that leg in blocks 16 & 17 of GSA Form 3641

# Senior Federal Travel Form

Interagency Report Control Form  
0322-GSA-AN

1. Department/Agency	2. Bureau/Office/Service
3a. Contact Name	3b. Contact Title
3c. Contact Phone Number	3d. Contact Fax Number

4. Aircraft Registration Number	5. Aircraft Serial Number	
6. Aircraft Make/Model	7. Purpose of Flight	8. Flight Number
9. Variable Cost Per Hour	10. Charter Quote:	

Departure Leg	1	2	3	4	5	6	7	8	9
11a. Icao									
11b. Date									
11c. Time									
Arrival Leg	1	2	3	4	5	6	7	8	9
11d. Icao									
11e. Date									
11f. Time									
12. Hours									
13. Pax No.									

[illegible]



## Attachment 4: Senior Federal Travel Form, Continued

### Instructions for Senior Federal Travel Data Form

1. **Department/Agency** - The Federal Department or independent agency not assigned to a Department.
2. **Bureau/Office/Service** - Unit within a Department or agency (including offices or services) which dispatched the flight.
- 3a. **Contact Name** - The name of person scheduling the flight.
- 3b. **Contact Title** - The official title of person scheduling the flight.
- 3c-d. **Telephone and FAX Numbers** - Telephone numbers for contact person.
4. **Aircraft Registration Number** - FAA registration number or military designated tail number.
5. **Serial Number** - The aircraft manufacturer's serial number as reported to the Federal Aviation Administration (optional).
6. **Aircraft Make/Model** - The descriptive name of the aircraft.
7. **Purpose of Flight** - A one-letter code identifying the reason the aircraft was dispatched. The codes are:
  - M** = Flight is scheduled to conduct an agency mission; such activities include the transport of troops and/or equipment, training, evacuation, intelligence and counter-narcotics activities, search and rescue, etc. (see Title 49 CFR Part 101-37.100).
  - R** = Required Use. Use of Government aircraft is required for bona fide communications, security needs, or exceptional scheduling requirements.
  - T** = Other Official Travel. Flight is scheduled for transportation of personnel on official travel other than Mission or Required Use Travel.
8. **Flight Number** - An optional agency-designated number. (\*optional)
9. **Variable Cost/Hour** - The cost of operating aircraft that vary depending on how much the aircraft are used. (\*optional)
10. **Charter Quote** - The cost quoted by an FAA-approved charter operator (vendor) for the planned flight.
- 11a. **Location (departure)** - The airport name for the initial departure point of the aircraft.
- 11b-c. **Date and Time** - Date (month-day-year) and time of the departure (24-hour format) for the first leg of the flight.
- 11d. **Location (arrival)** - The airport name for the initial arrival point of the aircraft.
- 11e-f. **Date and Time** - Date (month-day-year) and time of arrival (24-hour format) for the first leg of the flight.
12. **Hours** - The flight time recorded by the pilot for the leg. (\*optional)
13. **Pax** - Total number of passengers transported for this leg. (\*optional)
14. **Passenger's Name** - The name of the identified passenger; last name first, first name last.
15. **Passenger's Department/Agency** - The passenger's department/agency or bureau, or in cases of dependents, the unit for which the relative works, or in cases on non-Federal travelers, the unit which approved their passage on the flight.
16. **Status Code** - A one-letter code identifying the type of passenger being reported. The codes are:
  - C** = Contractor
  - N** = Non-Federal Official
  - D** = Dependent
  - O** = Other Official Traveler (employee)
  - E** = Senior Executive Branch Official
  - S** = Senior Federal Official
  - M** = Military
17. **Purpose of Travel** - A two-character alphanumeric code identifying reason the passenger is on the flight.
  - "Mission-Requirement."** Activities that constitute the discharge of an agency's official responsibilities. Such activities include, but are not limited to, the transport of troops and/or equipment, training, evacuation (including medical evacuation), intelligence and counter-narcotics activities, search and rescue, etc.
    - 1E** = Emergency means an unexpected, serious occurrence or situation urgently requiring prompt action.
    - 1O** = Operational
    - 1T** = Training
  - "Required Use."** Use of a Government aircraft for the travel of an Executive agency officer or employee to meet bona fide communications or security requirements of the agency, or exceptional scheduling requirements.
    - 2B** = Business Only
    - 2C** = Combined Business and Personal or Political (Reimbursable category)
    - 2W** = Wholly Personal or Political (Reimbursable category)
  - "Other Official Travel."** Travel is for official business other than Mission or Required Use.
    - 3B** = Business Only
    - 3C** = Combined Business and Political (Reimbursable category)
  - "Space Available."** Travel other than for the conduct of agency business; using aircraft capacity that is already scheduled for use for an official purpose but would otherwise not be utilized.
    - 4S** = Space Available (Reimbursable category)
18. **Leg On and Leg Off** - The airport name at which a passenger boarded and departed the flight.
- 19a. **Government Cost** - The appropriate share of the full operating cost of the aircraft allocated to the passenger.
- 19b. **Charter Cost** - The appropriate share of the full charter cost quoted by an FAA-approved vendor for the planned flight.
- 19c. **Commercial Cost** - The corresponding commercial cost had the passenger used scheduled airline service.
20. **Reimbursement Amount** - The amount required to be reimbursed to the Government for the flight, if applicable.

*\*Optional field supporting the automated calculations in block 19.*



## **APPENDIX D: AVIATOR FITNESS AND VISION**

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## Section A. Fitness of Aircrew Personnel

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### A.1. General

Certain adverse physiological or psychological factors can be responsible for causing mishaps, both in the air and on the ground. These adverse factors include: fatigue; improper diet; poor physical condition; improper or excessive use of tobacco, alcohol or drugs; minor illness; mental or emotional stresses, and insufficient or irregular sleep. Although such factors probably cannot be completely eliminated in aviation personnel, it is important that the existence of these factors be recognized and that appropriate action is taken to minimize their effects. **Particular emphasis should be placed on the needs of deployed aircrews who are operating in unfamiliar environments and often on unusual cycles.**

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### A.2. Command Action

The following are command responsibilities:

- Observing, in letter and spirit, the maximum utilization factors for aircrews prescribed in this manual.
  - Arranging watch duties so that crews on alert duty are able to sleep with a minimum of interruption from telephone calls, administrative matters, machinery noises and other disturbances.
  - Ensuring that all aircrew personnel clearly understand the effects of fatigue, distraction, emotional stress, improper diet, overindulgence, and insufficient sleep; advising aircrew personnel of their duty and responsibility to bring any such conditions which might affect safety of flight to the attention of the commanding officer, and to request grounding, if necessary, until such factors are corrected.
  - The Coast Guard monitors and controls crew mission days, flight time, and other fatigue-related factors as a risk management tool. Crew utilization standards are not designed to hinder operational commanders in mission planning or execution. Scheduling and rest guidance should be viewed as long term risk management and loss control parameters designed to minimize injury and damage and to preserve limited capital and personnel resources for future operational use.
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## Section A. Fitness of Aircrew Personnel, Continued

### A.3. Factors Affecting Fitness of Aircrew Personnel

#### A.3.a. General

Training and equipment can only be effective if flying personnel are fit to fly. Inadequate nourishment, lack of sleep, excesses which lower efficiency, inattention to minor illness, distraction, and preoccupation are incompatible with flight safety. A professional approach to flying requires a thorough knowledge of one's individual and crew limitations.

#### A.3.b. Responsibilities

Individual aircrew personnel are responsible for maintaining a high level of mental and physical fitness.

#### A.3.c. Specific Factors

The following factors directly affect aircrew personnel fitness.

##### A.3.c.(1) Sleep and Rest

Human factor studies have identified fatigue as a significant factor impacting aircrew judgment and operational performance. Fatigue is alleviated and mental alertness is restored by proper sleep. Irregular and insufficient sleep patterns can create both immediate and long term (or chronic) fatigue. Noise, poor climate control, bright light, excitement, worry, or any other condition that is not conducive to restfulness will diminish the benefits of sleep.

While the optimum amount of sleep varies widely among individuals, the normal standard for flying personnel is eight hours in every 24-hour period. Factors such as excessive fatigue, illness, and emotional stress tend to increase this standard. Mishap experience and studies indicate that any decrease in a flight crew member's ability to sleep will influence normal performance functions and increases the likelihood of error. Since influence of increased error becomes particularly significant during operations at night and in poor weather, flights, watchstanding requirements, and collateral duties should be assigned with due regard to providing adequate crew rest for such assignments.

#### NOTE

Studies have demonstrated that sleep obtained during daylight hours may not be as effective and restorative as nocturnal sleep.

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## Section A. Fitness of Aircrew Personnel, Continued

### A.3.c.(2) Reverse Cycle Operations

Traditionally, the Coast Guard has structured crew rest limits based on the air station Search and Rescue ready crew model. Within this paradigm, reverse cycle operations are limited to isolated late night SAR cases, with the crew allowed restorative sleep immediately upon relief. Typically, relief crews respond to tasking the following night if needed. Transitioning to night vision goggles, increased red-zone missions (0300-sunrise), sensor packages such as CASPER, and demands for “round the clock” deployed law enforcement response require a safe protocol that satisfies operational requirements yet accounts for the body’s strong natural desire for rest during hours of darkness. Particularly alarming is human factors science that indicates increased mental and physical impairment the third night of reverse cycle operations.

The optimal strategy for coping with reverse cycle operations depends on the anticipated length of operations. For the long-term, flight crewmembers should seek to actually shift their “body clock” to foster nighttime operations. For short-term operations, it is best for flight crewmembers to remain day oriented, compensating for nighttime operations with daylight napping.

Since humans are diurnal, physiologically programmed to perform during day hours and sleep during night hours, to maximize crew endurance during long term sustained night operations the crews’ normal “day” physiological profile must be adjusted to a “night” orientation. To accomplish physiological adaptation, specific cues that give the body time-of-day information must be controlled. In order of importance, these cues include: exposure to light, sleep timing, work schedule, and meals. By altering the timing of these cues, one can delay or advance physiological processes so that energy cycles are more oriented to nighttime. However, to successfully achieve adaptation to night the timing of these cues must be consistent from day to day. Deviations in the timing of the cues will produce jet-lag like symptoms such as chronic fatigue, irritability, depression, disruption of menstrual cycles, and gastrointestinal disorders, ultimately placing the crew and mission effectiveness at risk.

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(2)a Reverse Cycle Operations – Planning Considerations**

Operational Commanders must evaluate the probable mission benefits against increased reverse cycle operations fatigue risk. While night vision goggles may enhance detection capability, they offer little identification capability. Similarly, reverse cycle operations should be planned during lunar cycles that best enhance night vision goggle capabilities. Any safe reverse cycle operations require suitably isolated crew rest facilities. The shipboard environment provides many challenges for uninterrupted rest during daylight. Rotation of the entire cutter schedule (not just the AVDET) appears to foster a better (but not ideal) rest environment for cutter and AVDET personnel. Crews deploying to ashore forward operating bases should carefully consider rest facilities and deploy with any required equipment (i.e. black out curtains, provisions for food preparation when restaurants are closed, etc.). Crew berthing should be arranged by similar mission scheduling to minimize disruptions.

Cutter requirements for daylight boardings concurrent with reverse cycle flight operations may quickly “burnout” the cutter crew and AVDET, yielding elevated risks for both evolutions.

Safe cutter-based helicopter maintenance during reverse cycle operations should be considered. Since the aircrew “work day” may be during hours of darkness, aircraft spotting and routine maintenance may be completed on a dark deck, with flashlights, perched on ladders/check stands aloft on the aircraft. It may be advantageous for some AVDET members to remain day oriented to complete aircraft maintenance in daylight. Any test flight will require a re-adaptation to daytime.

Augmenting of officer and enlisted AVDET members is highly recommended to allow continued asset deployment and proper crew rotation/rest (i.e. 2 nights on/1 night off).

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(2)a Reverse Cycle Operations – Planning Considerations (Continued)**

Shipboard experience indicates best results when the entire cutter shifts routines. Most effective is a 1400-1500 Reveille and 0400 Taps. (Note: Shifting of the ship's clock is the recommended avenue to accomplish this routine shift.) This provides balance of sufficient daylight for aircraft and cutter maintenance and training and desired nighttime operations.

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### **A.3.c.(2)b Reverse Cycle Operations – Personnel Coping Strategies**

Seek daylight exposure after awakening from sleep at approximately 1500, but not before. Doing so will help the body assume a 1500 sunrise.

During proscribed wakeful periods after sunset, remain within a brightly lit space (with levels equivalent to a suitably lighted shop/hangar space) to initiate “daylight” response. Ensure necessary night vision adaptation period.

Once night adapted, maintain a consistent sleep period, beginning just prior to or soon after sunrise (to minimize exposure to light) and ending about 1500.

Consistent, reliable scheduling is one of the best tools for fostering safe reverse cycle operations.

Be consistent with meal periods, reflecting a “breakfast” orientation upon awakening in mid-afternoon and appropriately sequenced meals to follow.

Once night adapted, when possible maintain consistent flight mission times or within a specific operational window (e.g., 2200 to 0400). Minimize flights between 0300 to sunrise or 0600 whichever comes first. The 0300 to sunrise period is a crew endurance “red-zone” period where alertness is at a low point, even under night adaptation.

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(2)b Reverse Cycle Operations – Personnel Coping Strategies (Continued)**

If a supplemented crew is provided, assure consistent wakefulness during “off” time. Given the fragile nature of night adaptation, easily reversed by a single 24 hours of daylight activity, crews must be diligent to stay in a night schedule when adapted, regardless of duty scheduling. Environmental factors such as collateral duty requirements, family demands, off-duty demands, etc. must adhere to the night schedule for the member to remain safely adapted.

When possible, reduce the period of sustained wakefulness (time from sleep until present) before flights to below 8 hours. That is, encourage crews to nap 1-2 hours before missions if their period of sustained wakefulness is approaching 8 hours.

Maintain a 7-8 hour sleep period. Use naps in the evening to reduce sleep loss, if daily sleep duration is less than 7 hours.

Consider any disruption in the continuity of sleep (phone call, beeper call, noisy environment, etc.) as a “bad night” and make arrangements to nap during the day, and sleep-in at the opportunity to compensate for the sleep loss.

Sleep-in the day after a sleep loss or a “bad night” (less than 7 hours or a disrupted sleep period makes for a “bad night”). Consider that personnel are more susceptible to develop chronic fatigue when working nights, even if an adaptation protocol is in place.

Do not delay compensating for sleep loss or a bad night. You will incur sleep debt and experience fatigue at unexpected times of the work period (in this case nighttime).

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(2)b Reverse Cycle Operations – Personnel Coping Strategies (Continued)**

Optimize the sleep environment by reducing light, noise, and controlling temperature. Sleep is most restorative if taken in a dark, quiet, and cool/well ventilated environment. Consider sleeping arrangements where occupants have similar sleep schedules to minimize disruptions from activity in the berthing areas.

Consider that susceptibility to make wrong decisions and to experience spatial disorientation are exacerbated by sleep loss.

Factor alertness into each mission risk analysis. Try to avoid missions during the red zone (0300-sunrise). If you must operate in the red zone maintain mission duration as low as possible. Use crew resource management and maintain a lively chat in the cockpit at all times. **DO NOT ALLOW PERIODS OF SILENCE** during the red zone, or you **WILL** zone.

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### **A.3.c.(2)c Reverse Cycle Operations – Suggested Operational Scheduling**

No Reverse Cycle Operational Doctrine is suited to all mission scenarios. The suggested protocols below have been tested and proven an effective template for some reverse cycle operations. The first template assumes a short period (2 nights maximum) “pulse” into night operations with the crew remaining daytime oriented. The second template assumes a dedicated effort to night adapt for a prolonged reverse cycle operation. Both protocols assume isolated crew rest facilities

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## Section A. Fitness of Aircrew Personnel, Continued

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### A.3.c.(2)c Reverse Cycle Operations – Suggested Operational Scheduling (Continued)

Short-Term Reverse Cycle Operations: Repeated nights of scheduled or unscheduled operational launches can be especially fatiguing to a crew, particularly if the crew is remaining in a “Daytime” orientation due to the short period of night operations. Unless the crew has night adapted by adhering to the “Long-Term Reverse Cycle Operations” protocol below and reached “Night 4 and Following,” the following guidance is suggested:

**Night 1:** Crew Utilization limits listed in Chapter 3, Section C.3 of this manual apply. If the crew retires after the sortie, seek to gain as much uninterrupted sleep as possible. If the sortie was during the “red zone” (0300-sunrise), the crew should be provided a minimum of 10 hours crew rest after mission completion before subsequent tasking. Upon awakening, observe daylight to activate normal physiological cycles. Nap as possible in late afternoon. Seek to limit the period of sustained wakefulness prior to the next sortie to less than 8 hours. If possible, retire at normal bedtime prior to “Night 2” responses.

**Night 2:** If a launch occurs 0000-sunrise the second night, the crew should be limited to 4.0 hours of cutter based flight operations (including training flights). Crew Utilization limits listed in Chapter 3, Section C.3 of this manual apply to shore based operations. If the crew retires after the sortie, seek to gain as much uninterrupted sleep as possible. If the sortie was during the “red zone” (0300-sunrise), the crew should be provided a minimum of 10 hours crew rest after mission completion before subsequent tasking. Upon awakening, observe daylight to activate normal physiological cycles. Nap as possible in late afternoon. Seek to limit period of sustained wakefulness prior to next sortie to less than 8 hours.

**Night 3:** The crew should not respond to launch tasking from 0000-sunrise. The crew must attain 24 hours of crew rest before assuming alert status from 0000-sunrise (returning to “Night 1” above if necessary).

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## Section A. Fitness of Aircrew Personnel, Continued

### A.3.c.(2)c Reverse Cycle Operations – Suggested Operational Scheduling (Continued)

**Long-Term Reverse Cycle Operations:** This protocol assumes prolonged employment of a single crew into the period of 0000-sunrise. The sequence integrates the maximum daily shift of the body's clock of 90 minutes. As such, requires a minimum of 4 nights to potentially shift the body's clock from 0000 to 0600 bedtime. Once begun, **the crew must consistently adhere to night adaptation strategies to facilitate nighttime orientation**. Specifically, seek to retire prior to sunrise and sleep until 1300-1500. Due to the detrimental effect daylight has on reorienting the body's cycles, avoid sunlight exposure until after 1500. The sequence is as follows:

**Night 1:** A maximum of 4.0 hours of cutter based flight operations. The Crew Utilization limits of Chapter 3, Section C.3 of this manual apply to shore based operations. If operation of crew and aircraft occurred earlier in the day (i.e. transport to forward operating base or cutter), assure the Crew Utilization limits of Chapter 3, Section C.3 of this manual are not exceeded. Leverage napping to reduce sustained wakefulness to less than 8 hours before nighttime sortie. Upon final landing, the crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

**Night 2:** A maximum of 4.0 hours of cutter based flight operations. The Crew Utilization limits of Chapter 3, Section C.3 of this manual apply to shore based operations. Upon final landing, the crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

**Night 3:** No flight operations. Crew maintains Reverse Cycle measures during "off day/night." Coverage of AOR to be provided by another crew or asset.

**Night 4 and Following:** Unrestricted night operations. The Crew Utilization limits of Chapter 3 Section C.3 of this manual apply. Planned aircraft recovery 30 minutes prior to sunrise. Upon final landing crew is placed in Reverse Cycle Crew Rest Status until 1600 the following day.

**Ramp Down:** A full 24 hours off. Daylight only operations for the following 24 hours. After that point operations are limited only by the Crew Utilization limits of Chapter 3, Section C.3 of this manual.

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## Section A. Fitness of Aircrew Personnel, Continued

<b>A.3.c(2)d Reverse Cycle Crew Rest Status</b>	Operational Commanders must be sensitive to the high risk imposed on night-adapted crews responding to daytime missions. Realize that frequent disruptions will place crews in a constant state of jet-lag and severely compromise endurance and safety.
<b>A.3.c(2)e Reverse Cycle Operations - Sunrise/Sunset Abnormalities</b>	Operations at extreme latitudes introduce widely varied solar cycles. Gain exposure to light (real or artificial) upon waking at 1300-1500 until 0300-0400. Maintain constant bedtimes of approximately 0600-1500.
<b>A.3.c(2)f Reverse Cycle Operations - Summary</b>	Regardless of the Reverse Cycle Operations protocols of this manual, the deployed aircraft commander is tasked with evaluating the readiness of his/her crews in meeting assigned missions. Operational commanders should be cognizant that fatigue is difficult to self-diagnose and therefore avoid operations contrary to sound judgment. Even by adhering to the above doctrine, crews may still fail to reach advantages of night adaptation and therefore decline missions due to inadequate crew rest.
<b>A.3.c.(3) Diet</b>	The optimum diet is based on the individual's caloric needs and the adequate provision of essential nutrients. The caloric value of food consumed for a given period should balance the heat eliminated by the individual during that same period. The assistance of a flight surgeon or dietitian should be obtained in calculating these values, especially in hot or cold climates. A medical officer should always be consulted when using a special diet, whether for gaining or losing weight. The regularity with which meals are consumed is as important as the type of food. Adequate provision for meals is essential to flight safety.
<b>A.3.c.(4) Exercise</b>	Exercise requirements are more uncertain than any of the other factors discussed in this paragraph. Although needs vary from individual to individual and from situation to situation, some form of physical exercise is necessary to keep the body in good condition. Physical fitness programs are encouraged at aviation units.

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## Section A. Fitness of Aircrew Personnel, Continued

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**A.3.c.(4)**  
**Stimulants and**  
**Depressants:**  
**Alcohol**

Alcohol is a well recognized central nervous system depressant. It is one of the most frequently used and abused drugs in our society. Even small amounts of alcohol in the blood can seriously impair judgment, reflexes, muscular control, and also reduce the restorative effects of sleep. The level of alcohol in the body varies with the frequency and amount of alcohol intake, the length of time following cessation of drinking and an individual's body weight. A zero alcohol level is essential for aviation personnel to meet the rigorous demands of flight operations. Detectable blood alcohol or symptomatic hangover are causes for grounding of flight crew personnel or for restricting the activities of maintenance personnel not actually involved in flight operations. Although some personnel may completely metabolize all alcohol well within the twelve (12) hour limit, this time span allows an adequate margin of safety before resuming flight operations.

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**A.3.c.(5)**  
**Stimulants and**  
**Depressants:**  
**Tobacco**

The nicotine contained in tobacco is a quick-acting poison. Excessive smoking causes depression of the nervous system and impairment of vision. The carbon monoxide resulting from the combustion of tobacco is absorbed by the bloodstream in preference to oxygen, resulting in a lowering of altitude tolerance. Tobacco smoke also irritates the respiratory system.

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**A.3.c.(6)**  
**Stimulants and**  
**Depressants:**  
**Caffeine**

The drug caffeine, contained in coffee, tea and many soft drinks, can produce an adverse effect on the body. The amount of caffeine contained in just two cups of coffee appreciably affects the rates of blood flow and respiration. In small amounts, coffee can be considered a nervous system stimulant. Excessive amounts may produce nervousness, inability to concentrate, headaches, and dizziness. Individuals accustomed to daily intake of caffeine may develop headaches and experience a loss of sharpness if daily intake is stopped or significantly curtailed. Caffeine withdrawal syndrome may impact flight safety.

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**A.3.c.(7)**  
**Stimulants and**  
**Depressants:**  
**Drugs**

Self-medication in any form by flying personnel can be extremely hazardous. Even relatively common medicines, such as aspirin, antihistamines, cold tablets, and tranquilizers, can seriously impair the coordination and concentration required in flight.

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(8) Minor Illness**

The common cold, digestive upsets, and other minor illnesses, which do not seriously handicap individuals in other pursuits, may produce intolerable impairments in flying personnel. Inflammation accompanying a cold can cause extreme discomfort during altitude changes and can result in permanent injury. Distention caused by gas in the stomach or intestines may create symptoms varying in intensity from mild discomfort to incapacitating pain.

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### **A.3.c.(9) Mental and Emotional Illness**

The safe and effective operation of aircraft requires close attention, ability to ignore distractions and a high degree of emotional control. In-flight emergencies often demand rapid, accurate decisions and skillful actions. Attention to the job-at-hand can be dangerously diverted by concern over non-task-related problems. The aircrew member who is preoccupied with personal, domestic, or other problems, or who exhibits signs of poor mental attitude or emotional instability, should not be permitted to fly. An aircrew member who encounters these problems should report them to his/her commanding officer and request to be grounded. All persons in authority, particularly commanding officers, flight safety officers, and flight surgeons, must be constantly alert for signs of mental and emotional problems among aviation personnel.

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## Section A. Fitness of Aircrew Personnel, Continued

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### **A.3.c.(10) Simulator Sickness**

The experience of symptoms such as nausea, disorientation, and sweating has occurred in fighter, attack, patrol, and helicopter simulators.

Symptoms of simulator sickness may occur during simulator flight and last several hours after exposure. In some cases, the onset of symptoms has been delayed as much as 18 hours. These symptoms have occurred in both motion-base and fixed-base simulators to pilots and other aircrew as well as instructors. Preliminary data suggest that more experienced flight personnel are at greater risk and that simulator exposure can cause perceptual sensory rearrangement, which may compromise safety. Flight personnel exhibiting symptoms of simulator sickness following simulator exposure should abstain from same day flying duties. Individuals who have experienced simulator sickness in the past have a greater probability of reoccurrence and should not be scheduled to fly for 24 hours following simulator exposure.

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## Section B. Visual Acuity

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### **B.1. Requirements**

All aviation personnel who are required to wear corrective prescription eyewear:

- Shall wear them during all flight operations,
  - Shall have a backup set of eyewear readily available to them during all flight operations, and
  - May not wear contact lenses for solo pilot operations
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## **APPENDIX E: FAA Exemptions 5231B and 5614C**

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## Section A. Introduction

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### A.1. Overview

Due to the unique nature of Coast Guard Air Operations, the FAA has granted two exemptions, 5231B and 5614C. These exemptions must be renewed with the FAA every two years. Every effort is made to keep the most current version of the granted exemption in Appendix E of this manual. Regardless of the dates on the documents displayed in Section B of Appendix E of this manual, it can be assumed that the provisions of these two exemptions are authorized unless advised otherwise by Commandant (G-OCA).

For the purposes of drug interdiction law enforcement, Exemption 5231B waives the requirements of FAR 91.117(b) and (c), 91.119(c), 91.159(a), and 91.209(a). Therefore the Coast Guard is specifically authorized to:

1. Operate at speeds in excess of 200 knots when below 2500 feet AGL and within 4 nautical miles of the primary airport of Class C or D airspace.
2. Operate at speeds in excess of 200 knots in the airspace underlying Class B airspace or in VFR corridors through Class B airspace.
3. Fixed wing aircraft may operate in other than congested areas at altitudes below 500 feet above the surface and within 500 feet but no closer than 200 feet to the suspect. The USCG was advised to pursue sensor development that would allow operations without this exemption. (Helicopters may operate as described here without an exemption.)
4. Operate VFR below 18,000 feet MSL at altitudes other than standard VFR cruising altitudes
5. Operate lights out

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## Section A. Introduction, Continued

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### A.1. Overview (Continued)

Exemption 5614C pertains to Search and Rescue Operations. The Coast Guard is exempt from FAR 91.119(c), allowing operations over other than congested areas at an altitude of less than 500 feet and, in operations over open water or sparsely populated areas, at a distance closer than 500 feet to any person, vessel, vehicle, or structure for the purpose of rescuing and aiding persons and protecting and saving property.

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## Section B. FAA Exemptions 5231B and 5614C



800 Independence Ave., SW  
Washington, DC 20591

APR 16 2002

Exemption No. 5231F

Regulatory Docket No. FAA-2002-11723

Captain T.C. King, Jr.  
Chief, Office of Aviation Forces  
United States Coast Guard  
2100 Second Street, SW  
Washington, DC 20593-0001

Dear Captain King:

This is in response to your January 30, 2002, letter petitioning the Federal Aviation Administration (FAA) on behalf of the United States Coast Guard (USCG) for an extension of Exemption No. 5231, as amended, and Exemption No. 5614, as amended. That exemption from § 91.117(b) and (c), 91.119(c), 91.159(a), and 91.209(a) of Title 14, Code of Federal Regulations (14 CFR) permits USCG to conduct air operations in support of drug law enforcement and drug traffic interdiction without meeting part 91 provisions governing: (1) aircraft speed, (2) minimum safe altitudes, (3) cruising operations for flights conducted under visual flight rules (VFR), and (4) use of aircraft lights. Exemption No. 5614, as amended, expired on February 28, 2000, and relief that was provided in that exemption was incorporated in Exemption 5231, as amended, in May 2000. Therefore, the FAA will consider this a request to extend only Exemption No. 5231, as amended.

In your petition, you indicate that the conditions and reasons regarding public interest and safety, presented in the original petition upon which the exemption was granted, remain unchanged.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested extension of the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to USCG.

The FAA has determined that the justification for the issuance of Exemption No. 5231, as amended, remains valid with respect to this exemption.



In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator, Exemption No. 5231, as amended, is hereby further amended by extending its May 31, 2002, termination date to May 31, 2004, unless sooner superseded or rescinded.

All other conditions and limitations of Exemption No. 5231, as amended, remain the same. This letter shall be attached to, and is a part of, Exemption No. 5231.

Please note the FAA has assigned a new docket number to this project (Docket No. FAA-2002-11723; previously Docket No. 25177. In an effort to allow the public to participate in tracking the FAA's rulemaking activities, we have transitioned to the Department of Transportation's Internet-accessible Docket Management System (DMS), located at <http://dms.dot.gov>. This new system enables interested persons to submit, view, and download requests to the DMS in accordance with 14 CFR § 11.63. Future requests should be submitted through this system.

Sincerely,

A handwritten signature in black ink, appearing to read "Louis C. Cusimano".

**Louis C. Cusimano**

**Acting Director, Flight Standards Service**



## APPENDIX F: MISHAPS AND SALVAGE

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## Section A. Commandant's Aviation Safety Board (CASB)

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### A.1. CASB Composition

The Commandant's Aviation Safety Board (CASB) is composed of officers on the Commandant's staff having special cognizance of aviation operations, engineering, safety and medical matters.

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### A.2. CASB Duties

The CASB is charged with the following duties:

- Reviewing all major aircraft mishap reports and forwarding a recommended final action on each to the Chief of Staff.
  - Submitting recommendations for Commandant action on preventive measures, techniques, or policies that should be placed in effect to prevent recurrence of mishaps. In addition, making specific recommendations for additional local action when reported action appears inadequate.
  - Conducting independent investigations and analysis when appropriate.
  - Monitoring Coast Guard aviation operations and support functions to ensure effective risk management and safety (loss control) policies are incorporated and integrated as essential components of successful mission accomplishment.
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## Section B. Cockpit Voice and Flight Data Recorders

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### B.1. General

The purpose of installed Cockpit Voice (CV)/Flight Data Recorders (FDR) on Coast Guard aircraft is to provide information and data to Coast Guard mishap investigation boards. In the event of most Class A/B mishaps, Commandant (G-WKS-1) will send a representative or direct the Mishap Analysis Board (MAB) President to remove the CV/FDR box from the aircraft. Custody of the CV/FDR box will reside with Commandant (G-WKS-1) for the download of voice and data information. This information may be used to support a post-mishap animation of the events. Downloaded information will then be provided to the MAB President for analysis. The recordings of intercom transmissions captured on voice recorders are protected by the Privacy Act and can only be used for mishap analysis purposes. Transcripts of the relevant portions of internal cockpit transmissions may be released. Flight data, such as aircraft position, time, and heading information, obtained from the FDR is not privileged and is not safeguarded. CV/FDRs allow for more precise determinations of aviation mishap causal factors, which assists in preventing recurrences and thereby saves lives and valuable property.

The Flight Safety Officer and/or Engineering Officer of an Air Station may request to use these recording devices to assist in maintenance and troubleshooting or unit level mishap investigation activities. Such requests must be made to Commandant (G-WKS-1 and G-SEA). Commandant (G-WKS-1). The Aviation Safety Program guidance of the Safety and Environmental Health Manual (COMDTINST M5100.47(series)) includes the process to request a CV/FDR download.

Only the Commanding Officer can authorize aircraft flight without a mishap recorder.

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## **Section C. Flight Restrictions Following Aircraft Mishaps**

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### **C.1. Class A and B Mishaps**

Aircrew personnel shall be temporarily grounded following any aircraft mishap in which the aircraft sustained Class A or Class B damage or any crewmember has been injured. Aircrew personnel must be evaluated by a flight surgeon and be found physically qualified and aeronautically adaptable for aviation duties prior to resuming flight status. Waiver of this requirement may only be obtained from Commandant (G-OCA). Critical Incident Stress Management intervention may be warranted and is at the discretion of the Commanding Officer.

---

### **C.2. Class C and D Mishaps**

Temporary grounding of aircrews following class C or Class D mishaps may be advisable in certain situations and shall be at the discretion of the Commanding Officer or his designated representative.

---



## Section D. Mishap Experience

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### D.1. General

There have been two trends in Coast Guard aviation during the previous 10 to 15 years which deserve priority attention from command and control as well as aircrew personnel. Such focus is appropriate as a part of our Service-wide loss control commitment to enhance operational capability by reducing mishap related injury and equipment damage. The first trend is the controlled flight into terrain (CFIT) by Coast Guard aircraft and the second is the predominance of Class A aviation mishaps during the holidays (December – January) and the summer months (July – September).

---

### D.2. Controlled Flight into Terrain (CFIT)

Controlled flight into terrain has been a recurring problem in Coast Guard aviation and has been a factor in about 50 percent of our aviation Class A mishaps and aviation deaths. Mission risk assessment at all levels of command structure and aircrew situational awareness are critical to eliminating CFIT mishaps.

---

### D.3. Seasonal Mishap Experience

The Coast Guard has experienced a majority of major mishaps during the holiday season and weeks directly following (December – January) and fourth quarter (July - September) of the fiscal year. The reason for this trend is not known. However, many issues are at play in these periods which may not be as prevalent in other times during the year including: seasonally higher summer operations tempo, personnel desiring extended personal leave periods, focus on family celebrations, and the arrival of new personnel unfamiliar with local operations. Personnel scheduling, mission scheduling and operational pacing are critical to eliminating aviation deaths.

---





## Section E. Recovery and Salvage

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### **E.1. Recovery and Salvage of Mishap Aircraft**

The recovery and salvage of a mishap aircraft and the assignment of a salvage officer is the responsibility of the reporting custodian (normally the Commanding Officer of a Coast Guard aviation unit or Coast Guard cutter with a deployed helicopter). If circumstances dictate and the reporting custodian concurs, the salvage officer need not be a member of the reporting custodian's command. Headquarters support is available for coordinating assistance from other services or agencies, technical information, exceptional funding requirements, etc. , which are beyond the capability of the individual unit or district. The Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1 (series), further defines specific command, district, area, and headquarters responsibilities for the various elements of the salvage/recovery effort. It also contains a list of reference material pertaining to helicopter salvage and recovery.

---



## Section F. Critical Incident Stress Management

---

### **F.1. General**

It is well documented that traumatic events such as combat, natural disasters, and more localized human tragedies such as fires, serious accidents, loss of life or near loss of life can leave victims and rescue/law enforcement personnel with lasting personal emotional conflict. It is also well documented that personnel employed in the rescue/law enforcement professions are unlikely to seek out assistance.

---

### **F.2. Coast Guard Critical Incident Stress Management Assistance**

Because Coast Guard aircrews face traumatic situations on a daily basis, the Coast Guard has followed the lead of law enforcement, fire and paramedic organizations throughout the nation in adopting Critical Incident Stress Management (CISM) assistance as an organizational norm to debrief individuals, crews, and units experiencing a traumatic event (including a serious aviation mishap of a Coast Guard aircraft). Participation has been demonstrated to facilitate personnel retention, on-the-job performance as well as reduce stress in personal lives and relationships.

A CISM network of trained personnel exists throughout the Coast Guard and all commands. Crews and individuals are encouraged to participate in the process when traumatic events are encountered.

---



## **APPENDIX G:**

### **9D5 Helicopter Underwater Escape Trainer Performance Evaluation Form**





Date: \_\_\_\_\_

### 9D5 Helicopter Underwater Escape Trainer Performance Evaluation Form

This form is to be completed by the training facility instructor personnel on Coast Guard trainees who attend underwater escape training. The form will be used by the individual's commanding officer and by Commandant (G-OCA) to determine the need for remedial training or other administrative action.

Trainer's Name: \_\_\_\_\_

SSN: \_\_\_\_\_

Rank/Rate: \_\_\_\_\_

Unit: \_\_\_\_\_

C.G. Swim Evaluation Pass / Fail

Date: \_\_\_\_\_

#### CRITICAL DEFICIENCIES

#### Completion Stamp

**EVALUATION**  
Satisfactory / Unsatisfactory  
(Circle one)

1. Failed swim test.
2. Refused to participate in:
  - a. Swimming
  - b. Egress Training

**EGRESS TRAIL**  
(Make check in appropriate block)

3. Panic and/or disorientation with:
  - a. Early release of lap belt
  - b. Premature removal of goggles
  - c. Immediate egress through wrong exit
4. Drop-out prior to completion
5. Diver rescues

1	2	3	4	5	6

#### NON-CRITICAL DEFICIENCIES

1. Failure to release handle and/or slide bar.
2. Swimmer vice pulling oneself out of trainer.
3. Early release of lap belt without panic.
4. Egress through wrong exit without panic.
5. Failure to move from hand-hold to hand-hold.

Instructor's Name: \_\_\_\_\_

Rank/Rate: \_\_\_\_\_

Organization: \_\_\_\_\_

Signature: \_\_\_\_\_

**NOTE:** The commanding officer shall submit a letter report on all failures of the 9D5 trainer. The commanding officer may issue a waiver to personnel who fail for minor reasons.





## APPENDIX H: FLIGHT LOGBOOK GUIDE

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## Section A. General

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This guide is intended to assist Coast Guard Aviators in properly filling out their flight logbooks. These guidelines represent minimum standards for filling out a flight logbook. Each aviator may use personal discretion when deviating from these guidelines to ensure a proper flight record is kept. It is the aviator's responsibility to maintain each section of the logbook and certify its accuracy by signing the Pilots block in the bottom right corner of each page. All logbook entries shall be made in ink. All entries shall be neatly printed or stamped with all signature blocks properly signed.

---

### **A.1. Simulator Activity**

Simulator time and simulator approaches shall be logged on separate pages from flight time. This shall be done by starting from the back of the book and moving forward when logging simulator activity. Simulator time shall be included in total accumulated flight time. Place the simulator time for each month above the "TOTAL THIS PAGE" block and add it to the time brought forward from the previous month. Precede this time with the entry "Simulator."

---

### **A.2. DIFPRO/DIFDEN**

All aviators in DIFPRO or DIFDEN status will maintain control of their own logbooks.

---

### **A.3. Entry Errors**

A single line shall be drawn through any errors, initialed and a correct entry made on the next line or appropriate space.

---

### **A.4. Source of Pilot Time**

Pilot Time shall be entered exactly as recorded on the Aircraft Flight Record (CG-4377), Part II (also referred to as the "Blue Sheet").

---

### **A.5. The Aviator's Responsibility**

Each aviator shall ensure his/her logbook is closed out, and certified correct on a monthly basis. The logbook shall be submitted to the Commanding Officer, or authorized deputy, for approval and signature.

---



## Section B. Entry Instructions

---

### **B.1. General**

Entries on pages that are listed as “Optional” are not required to be filled in by aviators. However, if these pages are kept up to date, they shall be kept following the enclosed guidelines.

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*Continued on next page*



## Section B. Entry Instructions, Continued

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### B.2. Qualifications and Achievements

See example in section D.1 of this appendix.

Lines shall be filled out in sequence, dated, and signed. (“Stamped” entries are authorized for the qualifications but not for the signature.) When a subsequent book is started, it is not required to duplicate stamps in the new logbook. However, all new designations shall be placed in the new book.

Entries include (examples are not totally inclusive):

Pilot Qualifications

Copilot

First Pilot

Aircraft Commander

Instructor Pilot

Flight Examiner

Special Designations

HU-25C Air Intercept Qualifications

Day/Night/NVG Shipboard Qualifications

Recurrent Qualifications

Semiannual Day/Night/NVG Shipboard Qualifications

**Note:** Each logbook shall have a “Day/Night/NVG Ship Qual” stamp on this page EVERY semiannual period the pilot has met his/her requirements. If the pilot does not complete Day, Night and NVG minimums for a particular semiannual period, line out the qualification that was not met. The logbook shall be stamped for the day the landings were completed. (This may be completed at the end of the semiannual period.)

Standardization Checks

SAR Procedures Checks

Instrument Checks

Miscellaneous Designations

Initial Standard Instrument Rating

---

*Continued on next page*



## Section B. Entry Instructions, Continued

### B.3. Personal Changes

Optional.

### B.4. Summary of Total Flight Record

See example in Section D.2 of this appendix.

Entries are optional.

Entries should include total flight time of all previous aircraft flown before starting a new logbook. All prior flight time from previous services shall be entered in this section. These shall be carried over each time a new logbook is started.

### B.5. Flight Record Summary, Total and for 12 Months Preceding This Log

See example in Section D.3 of this appendix.

Entries are optional.

Entries filled in here should be copied from the previous logbook. The first column should include total accumulated flight time to date of opening of the new book. The remaining columns should include flight time from the previous 12 months. (Example: If the book is being started on June 1, 1992, the monthly columns would represent the flight time from Jan - May 1992 and June - Dec 1991.) The items applicable to Coast Guard aviators that are listed on this page are explained in Section B.7 of this appendix.

### B.6. Summary of Pilot Time by Month, Model, Etc

See example in Section D.4 of this appendix.

Entries are optional.

Entries should include model of aircraft flown, individual years, and breakdown of monthly total flight time from this logbook.

Year Totals are by calendar year.

There shall be separate line entries for each make/model of aircraft flown during each calendar year.

*Continued on next page*



## Section B. Entry Instructions, Continued

---

### B.7. Monthly Log Entries

See examples in Section D.5 of this appendix.

Entries are mandatory.

The month and year are entered at the top of each page.

The DAY, MODEL, and SERIAL NUMBER blocks are filled in with information from each individual flight. The day is the number of the day in the month, the model is the specific model of aircraft flown, and the serial number is the tail number of the aircraft flown. Entries shall be recorded in chronological sequence.

The KIND OF FLIGHT column is optional and reserved for employment category(s) for each flight as recorded on the Blue sheet if used.

The TOTAL PILOT TIME, FIRST PILOT and COPILOT columns shall be recorded exactly as written on the Blue Sheet. The A/C COMDR column shall be designated for A/C time (time logged as pilot in command).

Entries in the SPECIAL CREW TIME column are for Instructor Pilot time. Line through the words “SPECIAL CREW” and replace with “IP” at the top of the column.

Entries under INSTRUMENT TIME shall be recorded exactly as written on the Blue Sheet.

Entries under NIGHT TIME shall be recorded exactly as written on the Blue Sheet. This column shall also be used to record NVG time. Split the individual block into an upper and lower half and record Night Time in the upper half and NVG Time in the lower half.

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*Continued on next page*



## Section B. Entry Instructions, Continued

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### **B.7. Monthly Log Entries, continued**

Entries under the three CARRIER columns shall be used for recording operational maneuvers such as pump drops, hoists, rescue swimmer deployments, autorotations, etc. The same Operational Codes used on the Blue Sheet shall be used here. A listing of Operational Codes is provided in Sections C.1 and C.2 of this appendix. The number of iterations shall be recorded in the ARR column, the Operational Code for the maneuver shall be recorded in the T&G column, and the condition (D for Day, N for Night, and G for NVG) shall be recorded in the BOL column. If more room is required to record the maneuvers completed on a specific flight, use the next line available.

The FCL Column shall be used to record ship landings, with the number of landings completed followed by the condition (D for Day, N for Night, and G for NVG).

The SEA/LAND column is for non-shipboard landings. The number of landings completed shall be recorded followed by the condition (D for Day, N for Night, G for NVG). Fixed Wing aviators may precede the condition code with a T for a Touch and Go landing or an F for a full stop landing (e.g., 1TD for a Touch and Go, Day).

The CATAPULT column is reserved for recording takeoffs, entries are optional.

The three STD INST APPR COMPL columns are for both Actual and Simulated Instrument Approaches flown. The NO column is for the number of approaches flown, the TYPE column is for the type of approach and the S column is for designating whether the approach was flown under day or night conditions, coupled, or uncoupled. Specific codes to be used in these columns are listed in Section C.3 of this appendix.

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*Continued on next page*



## Section B. Entry Instructions, Continued

### **B.7. Monthly Log Entries, continued**

The REMARKS column is for information regarding the flight not already logged. Typically this information would include Unit Case Number for SAR cases, “RT” and the appropriate number for standardized recurrent trainers, whether the flight was a STAN, SAR or Instrument Check, etc. The name of the other pilot or the word “solo” shall be recorded at the bottom of the block.

The TOTAL THIS PAGE line is for totaling all information for that page from the columns above. If the flight time entries for a month exceed the number of lines available on one page, a second page shall be used. In this case, on the line just above the TOTAL THIS PAGE line, print “CONTINUED ON NEXT PAGE.” If more than one page is used for a month, it is necessary to total each page. In that case, the TOTAL THIS PAGE, BROUGHT FORWARD, and TOTAL TO DATE lines shall also be filled in. The PILOT block shall be assigned on all pages for the month.

The BROUGHT FORWARD line is information brought forward from the previous month’s TOTAL TO DATE line. At the beginning of every semi-annual period, this line will commence with all 0’s except for the Total Accumulated Pilot Time Block. This block is continuously brought forward from the previous TOTAL TO DATE figure

The TOTAL TO DATE line is for adding the TOTAL THIS PAGE line to the BROUGHT FORWARD line. These numbers shall be forwarded to the next month’s BROUGHT FORWARD line (except for January and July when only the Total Accumulated Pilot Time is brought forward).

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*Continued on next page*



## Section B. Entry Instructions, Continued

---

### B.7. Monthly Log Entries, continued

The APPROVED block shall be signed by the Commanding Officer or his/her authorized representative at the end of each semi-annual period, when the aviator is transferred, or when the Commanding Officer is transferred.

The TOTAL THIS PAGE time for each month shall include all aircraft and simulator time for each aircraft qualification. It is the responsibility of each pilot to compile his or her flight time, and if dual qualified, place it in the SUMMARY OF PILOT TIME BY MONTH, MODEL section in the front of the book

Each pilot shall write his/her simulator time for the month above the TOTAL THIS PAGE line and add it to the monthly flight time. This shall be prefixed with the word “Simulator” next to it. This line does not take the place of recording individual simulator time at the back of the logbook.

A solid line shall be drawn at the bottom of each page, after the last entry for that month, to close out that page. The line shall be drawn diagonally from left to right starting just below the DAY entry of the last flight and ending just above the CERTIFIED A CORRECT RECORD block on the right. See the example in section D.5 of this appendix.

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### B.8. Flight Clothing Record

Entries not required.

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*Continued on next page*





## Section B. Entry Instructions, Continued

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### **B.9. Accident and Flight Rule Violation Record**

See examples in Section D.6 of this appendix.

Entries shall include year, number of flight violations and/or accidents for each period. The signature blocks shall be signed by the Commanding Officer or an authorized representative.

Normally there is one signature per semiannual period. The appropriate periods may be changed in the quarter column due to PCS transfer of the aviator or the Commanding Officer.

The top section, “Summary incidents prior to this book and subsequent,” shall have all zeros entered for first logbooks. For subsequent logbooks, the appropriate year and number of accidents/violations shall be entered from the previous logbook up to and including the last six years. The top signature block shall be signed concurrently at the end of the first semiannual period of the new logbook. This signature authenticates the previous number of accidents and/or violations.

If the aviator or Commanding Officer is transferred outside the normal semiannual period, the entries shall be entered and signed for the period from the previous semiannual period to the date of transfer. This is done by lining out the month in the quarter column and writing in the proper departing month. The next line will then have an adjusted period with a corrected beginning month. See the example in Section D.6 of this appendix depicting an aviator’s transfer in May.

---



## Section C. Operational/Instrument Codes

---

### C.1. Operational Codes

AC – Air Intercept Check  
AD – Air Identification  
AI – Air Intercept  
AR – Autorotation  
AT – Air Intercept to Tracking  
AW – Airways Training Flight  
C – CATCH  
DE – Air Deflector Extension  
DF – Freefall Drop  
DP – Radio Can/Pump Drop  
DR – Raft Drop  
DT – Dead in Water (Trail Line)  
DU – MA-2/3 Kit Drop  
DW – Dead in Water  
EC – Lost Comms  
EF – Fuel Malfunction  
EG – Gear Extension  
EH – Hoist Emergency  
EO – Other Emergency (Explain)  
EP – Flap Extension  
ES – Smoke/Fire  
EX – Emergency Oxygen Mask Drill  
HB – Basket Hoist  
HL – Litter Hoist  
HP – Pump Hoist  
HS - Sling Hoist  
IC – Instrument Check  
LA – Lives Assisted  
LS – Lives Saved  
M – MATCH  
P – PATCH  
RV – Radar Vectors  
SC – Standardization Check  
SE – Simulated Engine Out  
SP – SAR Procedures Check  
SR – Survivor Relocation  
XL – Cargo External Load/Sling

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*Continued on next page*



## Section C. Operational/Instrument Codes, Continued

### C.2. Rescue Swimmer Codes

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RD – Swimmer Direct (Actual)  
 RF – Swimmer Free Fall (Actual)  
 RS – Swimmer Sling/Harness (Actual)  
 RR – Swimmer Vertical Surface (Actual)  
 XD – Swimmer Direct (Training)  
 XF – Swimmer Free Fall (Training)  
 XS – Swimmer Sling/Harness (Training)  
 XR – Swimmer Vertical Surface (Training)

---

### C.3. Instrument Codes

Approach Type\*  
 P – Coupled Precision  
 N – Non Precision  
 U – Uncoupled Precision  
 \* - C preceding Approach Type code designates a circling approach (e.g., CN indicates a circling non precision approach)

Approach Condition  
 D – Day  
 F – Full Stop  
 G – NVG  
 L – Approach to landing  
 N – Night  
 T- Touch and Go

---



## Section D. Examples

### D.1. Qualifications and Achievements

<b>QUALIFICATIONS AND ACHIEVEMENTS</b> <b>(EXAMPLE)</b>		
QUALIFICATION	DATE	SIGNATURE
STD INST RATING	12 JUN 90	
HH65A COPILOT	31 AUG 90	
INSTRUMENT QUALIFIED ROTARY WING	31 AUG 90	
HH65A STAN I CHECK	02 FEB 91	
HH65A STAN II CHECK	08 FEB 91	
HH65A FIRST PILOT	22 SEP 92	
RESCUE SWIMMER QUAL	22 SEP 92	

*Continued on next page*

## D.2. Summary of Total Flight Record

Continued on next page



## Section D. Examples, Continued

### D.3. Flight Record Summary, Total and for 12 Months Preceding This Log

FLIGHT RECORD SUMMARY, TOTAL AND FOR 12 MONTHS PRECEDING													
ITEM	TOT ACC	19- JAN	19- FEB	19- MAR	19- APR	19- MAY	19- JUN	19- JUL	19- AUG	19- SEP	19- OCT	19- NOV	19- DEC
TOTAL PILOT TIME	1800.2												
FIRST PILOT	900.1												
COPILOT	900.1												
A/C COMDR	1450.2												
SPEC CREW	876.3												
.													
.													
.													
.													
BOLTERS	N/A												
CATAPULTS	3000												

### D.4. Summary of Pilot Time by Month, Model, Etc.

SUMMARY OF PILOT TIME BY MONTH, MODEL, ETC. (EXAMPLE)																	
YEAR AND ITEM	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	APR	JUL	OCT	YEAR TOTAL
1990 HH65A	30.1	22.3	19	26.7	18	22.5	23	24.6	14	21	14.8	15	70.4	67.2	61.6	50.8	250
1990 HU25A	12.9	12	11.9	21	13	16.9	18	11.8	14	17.9	21	10	56.7	50.9	43.8	48.6	180
1991 HH65A	23.9	22	17.5	13	19.2	22	21.4	24	20.1	18	14.5	19	63.3	54.2	65.5	51.5	235.5
1991 HU25A	16	14	23.8	20	12	16.9	25	16.9	22	15.7	17.9	21	53.8	58.8	63.9	54.6	231.1

Continued on next page



## Section D. Examples, Continued

### D.5. Monthly Log Entries

MONTH		YEAR																
MARCH		1992																
DAY	AIRCRAFT		KIND OF FLIGHT CODE	PILOT TIME			SPE- CIAL CREW TIME	INSTRUMENT TIME		LANDINGS		STD INST. APPR. COMPL. NO TYPE S	REMARKS					
	MODEL	SERIAL NUMBER		TOTAL PILOT TIME	FIRST PILOT	COPILOT		A/C COMDR	ACT	SM	NIGHT TIME			CARRIER	BASE	U/L		
1	H460A	8840	28	2.2	1.5	.7	2.2	2.2	0.4	2.2	4 MS N	1 FN	1	1	M	N	RT PILOT MINS LT JONES	
4	H425A	2512	3	3.5	2.2	1.3					1 OF D	1 FD	1	NP	DU		UCH 145 ENS SMITH	
...	...	...																
...	...	...																
...	...	...																
...	...	...																
...	...	...																
14	H460A	8812	29	1.8	1.8	0.0	1.8				8 MS D	3 FD					SAC TRNG SOLO	
				CONTINUED ON NEXT PAGE														
TOTAL THIS PAGE				32.5	22	10.5	5.5	4.4						CERTIFIED CORRECT RECORD				
BROUGHT FORWARD				2491.5	45.5	23.2	22.5	2	16.4						PILOT			
TOTAL TO DATE				2523.8	78	45.2	32.8	7.2	21						C.O. or authorized deputy			

MONTH		YEAR																
MARCH		1992																
DAY	AIRCRAFT		KIND OF FLIGHT CODE	PILOT TIME			SPE- CIAL CREW TIME	INSTRUMENT TIME		LANDINGS		STD INST. APPR. COMPL. NO TYPE S	REMARKS					
	MODEL	SERIAL NUMBER		TOTAL PILOT TIME	FIRST PILOT	COPILOT		A/C COMDR	ACT	SM	NIGHT TIME			CARRIER	BASE	U/L		
18	H460A	8840	28	2.2	1.5	.7	2.2	2.2	0.4	2.2	4 MS N	1 FN	1	1	M	N	RT PILOT MINS LT JONES	
2	H425A	2512	3	3.5	2.2	1.3					2 CH 1 MN						UCH 145 ENS SMITH	
...	...	...									1 OF D	1 FD	1	ML	D			
...	...	...																
...	...	...																
30	H460A	8812	29	1.8	1.8	0.0	1.8				1.8 0.5	8 MS N	3 FN				SAC TRNG CDR RICH	
				CONTINUED ON NEXT PAGE														
TOTAL THIS PAGE				35.7	23.7	12.0	3.4	10.0						CERTIFIED CORRECT RECORD				
BROUGHT FORWARD				2523.8	78.0	45.2	32.8	7.2	21.0						PILOT			
TOTAL TO DATE				2559.5	113.7	60.9	44.8	10.6	31.0						C.O. or authorized deputy			

Continued on next page



## Section D. Examples, Continued

### D.6. Accident and Flight Rule Violation Record

ACCIDENT AND FLIGHT RULE VIOLATION RECORD					
	PERIOD		NUMBER OF		SIGNATURE
	YEAR	QUARTER	ACCIDENTS	RULE VIOL.	
Summary Incidents prior to this book & subsequent 1-1-50	19 84		0	0	SIGNATURE ON RECORD IN PREVIOUS LOG BOOK AUTHENTICATED
	19 85		0	0	
	19 86		0	0	
	19 87		0	0	
	19 88		0	0	
	19 89		0	0	
Year in which this log book began	19 90	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
Remaining period covered by this log book	19 91	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
	19 --	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
	19 --	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
	19 --	Jan-Mar			
		Jan-Mar			

Continued on next page





## Section D. Examples, Continued

### D.6. Accident and Flight Rule Violation Record (Continued)

ACCIDENT AND FLIGHT RULE VIOLATION RECORD					
	PERIOD		NUMBER OF		SIGNATURE
	YEAR	QUARTER	ACCIDENTS	RULE VIOL.	
Summary incidents prior to this book & subsequent 1-1-50	1984		0	0	SIGNATURE ON RECORD IN PREVIOUS LOG BOOK AUTHENTICATED
	1985		0	0	
	1986		0	0	
	1987		0	0	
	1988		0	0	
	1989		0	0	
Year in which this log book began	1990	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
Remaining period covered by this log book	1991	Jan-Mar	0	0	
		Apr-Jun	0	0	
		Jul-Sep	0	0	
		Oct-Dec	0	0	
	19--	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
	19--	Jan-Mar			
		Apr-Jun			
		Jul-Sep			
		Oct-Dec			
	19--	Jan-Mar			
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		Oct-Dec			
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	Oct-Dec				





# APPENDIX I: COAST GUARD AUXILIARY AVIATION

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## Section A. Overview

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Using Auxiliary Aviation in conjunction with Coast Guard Aviation will increase the capability of any Coast Guard District, Activity, Group, or Air Station. It is a force multiplier for Coast Guard Aviation. In this regard, it is helpful to review the Auxiliary Aviation Mission Statement.

“Assist the Coast Guard in all areas authorized by the Commandant by performing any Coast Guard function, power, duty, role, or operations authorized by law. It shall be the responsibility of the Coast Guard Auxiliary to provide aircraft which meet all current Federal Aviation Regulations along with trained and qualified crews to accomplish these tasks.”

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## **Section B. Aircraft**

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Currently, the Coast Guard Auxiliary Aviation branch is comprised of nearly 200 aircraft. These aircraft range in size from 2-seat single engine to twin-engine cabin class aircraft. Obviously, these aircraft represent a range of capabilities. The order issuing authorities must be cognizant of this fact. They are urged to maintain close contact with the Auxiliary pilots to familiarize them with the capabilities/limitations of the aircraft and pilots in their Area of Responsibility. Unlike Coast Guard Aviation, Auxiliary Aviation does not have an equitable spread of aircraft throughout the country. The aircraft available in any given district is directly related to membership population and the kind of aircraft those members own and fly.

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## **Section C. Communications**

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Virtually all Auxiliary aircraft are equipped with two VHF-AM transceivers. In addition, all Auxiliary aircraft are required to be equipped with a VHF-FM radio. The Auxiliary air observer operates the VHF-FM radio on mission flights.

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## Section D. Navigation

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Most Auxiliary aircraft are equipped with two VORs, an ADF, Localizer, ILS, and DME. In addition, some Auxiliary aircraft are equipped with weather radar, storm scopes, an HSI, and RNAV. With the proliferation of low cost panel mounted and hand held GPS units, most Auxiliary aircraft have VFR GPS capability.

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## Section E. Pilots

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As with aircraft, Auxiliary pilots represent a range of capabilities. The Auxiliary has pilots with a Private Pilot license and 200 hours total time to pilots holding an Airline Transport Pilot license and thousands of hours. Auxiliary pilots are not required to have an instrument rating. Order Issuing authorities should be aware of which pilots are instrument rated and which are not. Auxiliary pilot designations and minimum requirements are as follows:

Co-Pilot - Private Pilot License, minimum 200 hours flight time and 200 hours Pilot-In-Command Time (PIC) time.

First Pilot - Private Pilot and 500 hours PIC time.

Aircraft Commander - Private License, Instrument Rating, and 1000 hours PIC time.

SAR Pilot - Only First Pilots and Aircraft Commanders may fly on SAR missions.

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## Section F. Training

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All Auxiliary pilots and observers must receive training in water survival techniques, emergency egress procedures, and use of survival equipment on an annual basis. In addition, Auxiliary pilots must meet the following requirements:

Fly and properly log a minimum of 12 hours PIC each semiannual period. Semiannual periods are 1 January through 30 June and 1 July through 31 December. In addition, pilots must satisfy the requirements of FAR 61.57 (FAA PIC recent flight experience requirements).

Aircraft Commanders and First Pilots must complete a SAR procedure flight check every 24 months to be qualified to participate in SAR missions.

Annually attend an air safety workshop conducted for Auxiliary aircrew by a Coast Guard Air Station or Commandant (G-OCX-2) representative.

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## Section G. Missions

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### **G.1. Search and Rescue**

With most Auxiliary aircraft being fixed wing, the Auxiliary role in this mission is mainly to search. Upon location of a distressed vessel or the object of a search, Auxiliary aircraft should be prepared to stay on scene, fuel permitting, until a Coast Guard air or surface asset arrives. The Coast Guard asset will become On-Scene Commander and assign any further tasking to the Auxiliary aircraft.

---

### **G.2. Pollution Response**

Auxiliary aircraft are excellent platforms for use in the pollution response role. Auxiliary aircraft provide the MSO with a dedicated resource that if used correctly, can effectively enhance spill detection and response. Pollution response flights can be performed by aircraft as a dedicated mission or in conjunction with a normal Auxiliary safety patrol.

---

### **G.3. Aids to Navigation**

The relatively high speed of Auxiliary aircraft maximizes the amount of navigation aids that can be surveyed versus using a vessel to perform the same task. Potential problems with navigation aids discovered from the air can be checked further by visits from Coast Guard or Auxiliary surface craft.

---

### **G.4. Chart Updating**

The use of Auxiliary aircraft is ideal for the chart updating mission. Auxiliary pilots and observers can identify objects that need to be added or deleted from nautical or aeronautical charts. More specific information can be gathered on the object during a ground or water based follow-up survey.

---

### **G.5. Fishery and Marine Mammal Protection Patrols**

Some Air Stations are tasked with flying agents from the National Marine Fisheries Service (NMFS) on track line fish patrols. To fully complete this mission, the Auxiliary aircraft should be configured for offshore operations. When configured for offshore operations, Auxiliary aircraft are excellent platforms for this mission.

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*Continued on next page*



## Section G. Missions, Continued

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### **G.6. Law Enforcement**

Although the Auxiliary has no law enforcement powers, Auxiliary aircraft can be a useful tool for surveillance and intelligence gathering. As with virtually any other Coast Guard mission, the LE mission can be conducted with a normal safety patrol or as a dedicated mission. Auxiliary aircraft should record and report any unusual activity detected during the course of a patrol. A thorough debrief of Auxiliary personnel should be conducted by the Air Station or Group LE Officer upon their return.

---

### **G.7. Ice Patrols**

Auxiliary aircraft are an effective tool in detecting ice buildups in the Northeast Rivers and the Great Lakes. Districts where ice is a problem during the winter should take advantage of the benefits of Auxiliary air in the Ice Detection mission.

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### **G.8. Logistics/VIP Transport**

Auxiliary Air can be used as effectively in this role as Coast Guard Air can be. Order issuing authorities should exercise due care in assigning the proper pilot and aircraft to match the appropriate logistics or transport flight. For example, if a VIP flight is to transport a Group or District Commander, an Auxiliary pilot with an Aircraft Commander designation should be used.

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### **G.9. Area Familiarization**

Auxiliary aviation can be utilized in this role as a cost effective way of familiarizing Group, MSO, and District personnel with their Area of Responsibility (AOR). Many questions can be answered by viewing the AOR from the air.

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